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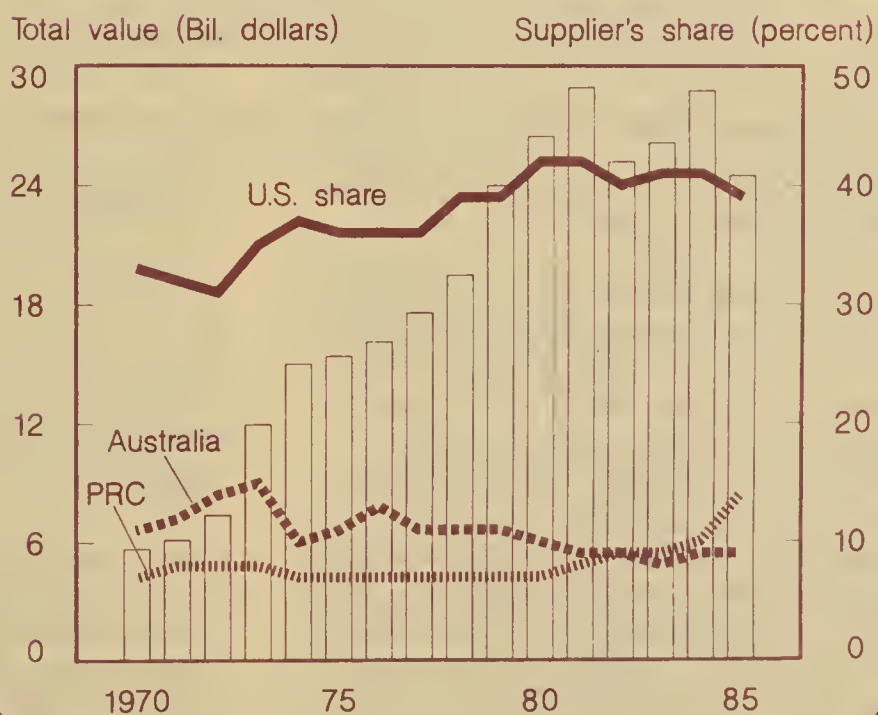
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# East Asia and Oceania

## Situation and Outlook Report

JUL 13 1986  
JUL 13 1986  
JUL 13 1986

### East Asia Farm Imports



US share declines,  
PRC's rises

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Note: East Asia refers to the markets of Japan, South Korea, Taiwan, and Hong Kong. Oceania refers to Australia and New Zealand. Tons are metric; dollars are U.S., unless specified otherwise; references to years are calendar years; the U.S. fiscal year is October-September; split years, e.g. 1983/84 are July-June, unless specified otherwise; and rice data are for milled rice unless specified otherwise.

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## SUMMARY

U.S. agricultural exports to East Asia are forecast to decline 11 percent in fiscal 1986 to \$7.8 billion, the lowest level since 1979. This follows a 17-percent drop in fiscal 1985. This year's decline is attributed to lower prices and declining cotton exports. Lower prices, changes in U.S. policy and a weaker dollar should stimulate some recovery in export volumes of cotton and feedstuffs after mid-year.

East Asia's total 1985 import volume of major commodities was roughly even with 1984, with gains in coarse grain, soybeans, and cattle hides balancing declines in meats, wheat, cotton, and tobacco. Import volume from the United States declined 8 percent, and the U.S. share of the region's farm imports dropped from 41 percent in 1984 to 39 percent in 1985. The decline was concentrated in the coarse grain and cotton markets, where the People's Republic of China (PRC) increased its share. The PRC, which emerged in 1983 as second to the United States as an East Asian supplier (Australia dropped to third), improved its overall share from 10 percent in 1984 to 14 percent last year.

Economic growth in the region slowed in 1985 and prospects for 1986 are mixed, with the Japanese economy expected to continue slowing while more rapid growth is forecast in the other East Asian economies. Declining petroleum prices, low commodity prices, economic prospects in major export markets and currency realignments are the main factors affecting the outlook.

East Asian agricultural output increased 1 percent to a new record on the strength of a 5-percent gain in livestock production. Crop output in 1985 was about the same as in 1984, influenced by a small decline in rice production offset by gains in other areas. Regional rice stocks are expected to rise by the end of the 1985/86 marketing year, reflecting a continuing problem with excess production. Regional livestock production continues to expand, although at slower rates than in the late 1970's.

Australia and New Zealand, relatively small markets for U.S. farm products, are important suppliers of agricultural products to the U.S. market as well as U.S. competitors in third markets such as East Asia. While their export volumes were up sharply in 1984/85 (22 percent for Australia and 7 percent for New Zealand), gains are expected to be more modest in 1985/86. With low prices persisting for many commodities, farm incomes in 1985/86 are forecast to fall significantly in both countries.

Total Oceanian farm output showed only a slight increase in 1985 as declines in crop production were offset by advances in livestock production. World market conditions and changes in policy are affecting production prospects in both countries. In Australia resources will continue to shift from crops to livestock, particularly favoring wool and beef production. New Zealand's elimination of price supports for pastoral agriculture has increased the risk in sheep and cattle farming and has thus encouraged more resources to move into row crops, horticulture, and specialized livestock enterprises.

The United States has been very competitive in the East Asian farm market over the past two decades. Except for the last couple of years, the United States has enjoyed a rising or stable share of East Asia's imports of coarse grain, soybeans, wheat, beef and veal, cotton, cattle hides, fresh citrus, and other fresh fruit. The U.S. share of the region's imports of pork, poultry meat, and other oilseeds has declined.

Analysis of agricultural protection in Japan and Korea shows that Government outlays and resource opportunity costs over the past twenty years have been rising. Although self-sufficiency ratios for some important commodities are high, others are low or declining. These developments bring into question the effectiveness of protectionism in meeting the food security objectives of these agricultural resource-poor countries. [William T. Coyle (202) 786-1611]

MAY 20 1986

# The East Asian Agricultural Market, 1984

Farm Exports in Billions of Dollars  
(Percent of Supplier's Total Farm Exports)





## EAST ASIA OVERVIEW

### *Economies Slow in 1985, Prospects for 1986 Mixed*

After robust performances in 1984, the East Asian economies slowed significantly in 1985. Slower growth in the U.S. economy and in world trade was mainly responsible. Nevertheless, economic growth in East Asia remained faster than world and OECD averages.

The East Asian economies are extremely dependent on trade, particularly with the United States, the destination for more than 35 percent of their exports. The United States

has purchased increasing shares of East Asia's exports in the last several years while its share of imports has declined slightly. As a result much of the recent growth in the region's total trade surplus—from \$38 billion in 1983 to \$68 billion in 1985—has reflected increased bilateral surpluses with the United States. The growing importance of the U.S. economy to the region has resulted from more rapid growth in the United States compared to other developed and developing markets, its lower trade barriers to key exports from the region, and the strength of the dollar against the yen, which has allowed Japan to increase its share in the U.S. market.

Last year's slowdown in the U.S. economy and prospects for the same or a somewhat faster rate in 1986, declining petroleum prices, and the appreciation of the yen affect the short-run prospects for the region's exports and economic growth. Forecasts suggest that while Japan's economy is likely to slow in 1986, those of the other East Asian markets will increase their growth rates. Recent currency realignments will give a competitive edge to those with currencies pegged to the dollar (Taiwan and Hong Kong) or depreciating against it (South Korea). South Korea, with its emerging automobile, electronic and high-tech industries, is in the best position to make inroads in the Japanese and U.S. markets. Indications are that Korean investment has picked up considerably in recent months, with a greater-than-30-percent drop in the won against the yen since late last year.

Short-term prospects for Japan are not as sanguine. While official forecasts place Japanese economic growth at 4 percent for 1986, slightly lower than last year's performance, private forecasts range as low as 2 percent. The stronger yen, which reached a post-war high against the U.S. dollar in April 1986, is acting like a tax on Japanese exports, cutting into profit margins and export sales. These circumstances will force Japanese industry to become more efficient, and will at the same time help defuse overseas protectionist sentiment which has threatened Japanese trade in the last few years. On the other hand, the stronger yen, along with declining commodity and petroleum prices, will reduce import prices and eventually help Japan's industrial-export sector recover its competitive position to some extent.

East Asia: Selected economic indicators

	1984	1985	1986 forecast 1/
<hr/>			
Gross domestic product (GDP)	Billion dollars		
Japan	1,242.4	1,335.8	1,844.1
South Korea	83.8	83.8	89.9
Taiwan	56.9	59.2	64.5
Hong Kong	30.5	34.2	38.9
GDP growth	Percent		
Japan	5.8	4.2	2.9
South Korea	7.9	5.0	6.5
Taiwan	10.3	4.1	8.5
Hong Kong	9.6	.8	4.5
Midyear population	Million		
Japan	120.0	120.7	121.5
South Korea	40.6	41.2	41.8
Taiwan	19.0	19.3	19.5
Hong Kong	5.4	5.5	5.6
Exchange rate 2/	Local currency units to U.S. dollar		
Japan (yen)	238.0	239.0	179.0
South Korea (won)	806.0	870.0	900.0
Taiwan (New Taiwan \$)	39.6	39.8	39.5
Hong Kong (Hong Kong \$)	7.82	7.82	7.80
Consumer price inflation	Percent		
Japan	2.3	2.1	.5
South Korea	2.3	2.5	2.5
Taiwan	0	-.2	2.5
Hong Kong	8.1	3.2	5.0

1/ Forecasts based on Wharton World Economic Outlook, December 1985, Philadelphia. Wharton Econometric Forecasting Associates; ERS estimates. 2/ Period average.

East Asia's merchandise exports and imports and trade with United States, 1983-85

Country	Exports			Imports 1/			Trade balance 2/		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
Billion dollars									
Japan	145.5	168.3	173.9	124.3	136.5	129.5	+31.5	+44.3	+56.0
South Korea	23.2	26.3	26.4	26.6	29.2	28.2	-1.8	-1.0	0
Taiwan	25.1	30.5	30.7	20.3	22.0	20.1	+6.3	+9.2	+11.7
Hong Kong 3/	20.6	28.4	30.1	22.5	28.6	29.7	-1.9	-.2	+.5
Total	214.4	253.5	261.1	193.7	216.3	207.5	+37.7	+52.3	+68.2

Country	Exports to United States as percentage of total exports			Imports from United States as percentage of total imports			Trade balance with United States 4/		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
Percent									
Japan	29.5	35.2	37.2	20.0	19.7	19.9	+18.5	+33.1	+39.5
South Korea	33.7	35.8	35.5	24.0	22.4	22.0	+2.0	+3.6	+3.9
Taiwan	45.1	48.8	48.1	22.9	23.0	23.6	+6.7	+9.8	+10.0
Hong Kong 3/	32.3	33.2	30.8	10.9	10.9	9.5	+4.2	+6.3	+6.5
Total	32.0	36.7	37.5	19.8	19.3	19.1	+31.4	+52.8	+59.9

1/ C.i.f basis.

2/ Difference between exports and imports, both on f.o.b. basis.

3/ Includes domestic exports and re-exports.

4/ Difference between exports to United States on f.o.b. basis and imports from United States on c.i.f. basis.

Stimulative fiscal policies are likely to have only a modest effect on the region's economies. With large current account surpluses and high savings rates, East Asian countries have significant scope for taking up the slack left from weaker export markets through increased private and/or public spending. But consumer spending and savings patterns are deeply ingrained and are likely to be slow in changing even when helped by Government inducements. Increases in public spending will be limited by budget considerations. Japan and Taiwan have undertaken modest efforts to increase public spending, and Japan plans a number of other stimulative measures this year to help counter the effects of a stronger yen.

Lower import prices and interest rates in the region should also stimulate consumption of some items, expand home construction, and reduce Korea's costs of servicing its \$47 billion external debt. But these policies will be less important to the region's economies in

1986 than the effects of currency realignment and the sustainability of growth in the United States and other major markets.

### Record Agricultural Output

East Asian agricultural output increased 1 percent in 1985 to a record level on the strength of a 5-percent gain in livestock production. Per capita output, however, was below 1976-79 levels, underscoring the region's continued dependence on imports. Crop output was about the same as in 1984, although well above levels during 1980-83 when Japan and Korea had below-average rice crops.

Gains in livestock production were achieved across the region in 1985. The biggest increase was in South Korea, with stepped-up slaughter of beef cattle and another big increase in milk production. Pork production in Taiwan and Japan rose 12 and 8 percent, respectively. Annual livestock



East Asia's agricultural imports and exports and trade with United States, 1983-85

Country	Imports 1/			Exports 2/			Trade balance 2/		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
Million dollars									
Japan	16,753	18,714	16,833	987	1,024	893	-15,766	-17,690	-15,940
South Korea	3,266	3,473	2,841	616	622	590	-2,650	-2,851	-2,251
Taiwan	2,684	2,984	2,720	1,219	1,323	1,228	-1,465	-1,661	-1,492
Hong Kong	3,428	3,591	3,566	200	227	251	-3,228	-3,364	-3,315
Total	26,131	28,762	25,960	3,022	3,196	2,962	-23,109	-25,566	-22,998

Country	Percent of total imports from the U.S.			Percent of total exports from the U.S.			Trade balance		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
Percent									
Million dollars									
Japan	41	41	40	14	15	14	-6,760	-7,532	-6,642
South Korea	59	54	49	9	10	11	-1,880	-1,809	-1,326
Taiwan	52	53	53	15	17	15	-1,216	-1,373	-1,271
Hong Kong 3/	16	17	17	21	22	22	-505	-569	-550
Total	41	41	39	14	15	15	-10,361	-11,283	-9,789

1/ C.i.f. basis.

2/ F.o.b. basis.

SOURCE: U.N. trade data; The Trade of China (Taiwan District).

production growth in East Asia has slowed in the 1980's, with declining rates in Japan offsetting steady ones in Taiwan and Korea.

### *U.S. Agricultural Exports Lose Share in East Asian Market*

U.S. agricultural exports to East Asia declined 17 percent in fiscal 1985 to \$8.8 billion, the lowest level since 1979 and \$1.8 billion less than 1984. The decline is attributed to an eroding U.S. market share caused by increased competition and the lack of growth in overall import volume. Total 1985 import volume of major commodities was roughly the same as 1984 with gains in coarse grain, soybeans, and cattle hides balancing declines in meats, wheat, cotton and tobacco. Import volume from the United States declined 8 percent, leading to a drop in the U.S. share of the region's farm imports from 41 percent in 1984 to 39 percent in 1985. Taiwan was the only East Asian market that expanded its volume of U.S. imports in 1985.

Despite losing share in the region's farm imports last year, the United States continued to rely heavily on East Asia as a major market for many commodities. East Asia remained the largest regional market, having surpassed Western Europe in 1984. As in the previous year, 28 percent of total U.S. farm exports went to East Asia, with larger percentages for many bulk commodities such as coarse grain (34 percent of U.S. exports), soybeans (37), cotton (54), and cattle hides (63), as well as value-added and/or processed commodities like beef (78), pork (38), poultry meat (41), and fruits and preparations (38).

Despite the general decline in the U.S. share of farm imports, performance in specific commodity markets was mixed. The U.S. share increased from 1984 for beef, sorghum, poultry meat, wheat, and cattle hides, but declined for corn, barley, soybeans, pork, and cotton.

Competition from the People's Republic of China (PRC) continued to be the most

U.S. agricultural exports to East Asia and share of  
total to East Asia by commodity, fiscal years 1984-1986 forecast

Commodity groups	East Asia			Share of U.S. total to East Asia		
	1984	1985	1986 fore- cast	1984	1985	1986 fore- cast
	--- Million dollars ---			----- Percent -----		
Animal and animal products	1,514	1,448	1,448	36	36	34
Beef (fresh, chilled, frozen)	327	378	378	73	78	73
Pork	85	28	59	62	38	60
Poultry meat	120	106	111	43	41	28
Tallow; inedible	82	60	49	13	11	9
Cattle hides; whole	655	639	615	65	63	61
Other animal products	245	242	236	14	14	14
Grains and feeds	4,478	3,419	3,010	26	26	27
Wheat and products	981	885	729	15	20	20
Rice	1	0	0	0	0	0
Coarse grains	3,242	2,310	2,062	39	34	38
Feeds & fodders	227	200	198	19	20	14
Fruits and preparations	428	460	477	34	38	40
Nuts and preparations	80	82	81	15	12	13
Vegetables and preparations	186	181	167	19	19	17
Oilseeds and products	2,017	1,532	1,414	23	24	22
Oilcake and meal	17	1	11	1	0	1
Soybeans	1,911	1,452	1,329	33	37	32
Vegetable oils	63	56	56	6	6	14
Tobacco, unmanufactured	394	422	402	27	27	27
Cotton, excl. linters	1,263	1,043	559	53	54	56
Other	207	215	234	16	19	21
Total	10,567	8,801	7,792	28	28	28
	--- 1,000 metric tons ---					
Wheat and products	6,169	5,862	5,880	14	20	20
Coarse grains	21,786	18,747	19,400	39	34	39
Protein meal	68	4	55	1	—	1
Soybeans	6,257	6,221	6,640	32	37	32
Tobacco	60	64	66	26	25	26
Cotton, excl. linters	795	706	394	54	54	52

SOURCES: Bureau of the Census, U.S. Department of Commerce; and ERS forecasts.

noteworthy development in several of the region's commodity markets. The PRC emerged in 1983 as second to the United States as a supplier to East Asia (Australia dropped to third). Its overall share of the region's farm imports improved for the second consecutive year, from 10 percent in 1984 to 14 percent in 1985. The PRC, historically important in a number of the region's commodity markets, has increased its profile in the Japanese and Korean coarse grain

markets and in the Japanese and Hong Kong cotton markets. Fewer corn and more cotton shipments this year should stabilize the PRC's share of total 1986 East Asian farm imports.

The value of U.S. exports to the region is forecast to continue declining in fiscal 1986, mainly because of lower prices. A weaker U.S. dollar and changes in U.S. policy should spur some recovery in the volume of shipments, particularly feedstuffs and cotton.



U.S. agricultural exports to East Asia  
by country, fiscal years 1982-86 forecast

Country	1982	1983	1984	1985	1986 fore- cast
Million dollars					
Japan	5,735	5,888	6,935	5,663	5,018
South Korea	1,607	1,713	1,816	1,400	1,262
Taiwan	1,166	1,237	1,409	1,342	1,130
Hong Kong	403	344	407	396	382
East Asia	8,911	9,182	10,567	8,801	7,792
World	39,095	34,771	38,027	31,187	28,000
U.S. share to:	Percent				
Japan	16.9	18.3	18.0	18.2	17.9
South Korea	4.1	4.9	4.8	4.5	4.5
Taiwan	3.0	3.6	3.7	4.3	4.0
Hong Kong	1.0	1.0	1.1	1.3	1.4
East Asia	22.8	26.4	27.8	28.3	27.8

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

## Commodity Highlights

### Coarse Grain

The region's coarse grain imports increased 2 percent in 1985 after a slight decline the previous year. Further gains are expected in 1986 as low feed costs increase livestock producers' profit margins and their inclination to expand operations. The growth in coarse grain imports in 1985 was driven by expansion in the region's cattle inventories (up 3 percent to 7.7 million head), and expansion in poultry meat (up 3 percent) and egg production (up 2 percent). The region's pork industries, which were experiencing cyclical difficulties in 1984, continued to have problems in 1985. Hog inventories at the beginning of 1986 were larger than a year ago in Korea and Taiwan but smaller in Japan.

Increases were registered for all major feed grains in 1985 with Korea and Japan showing the greatest import growth. Taiwan's imports dropped 1 percent because of a surplus rice-feeding program. Of all major commodities, the U.S. share of East Asia's coarse grain imports suffered the most last year, dropping from 80 percent in 1984 to 65 percent in 1985. A decline in U.S. corn sales of 3.8 million tons in 1985 was offset by a rise

in PRC sales of 3.5 million tons at an average 8 percent below U.S. prices. Thailand and South Africa also increased corn shipments in 1985. The U.S. share of the region's coarse grain imports is expected to stabilize at 1985's level, as increased competition from Argentina, South Africa, and Thailand is offset by less from the PRC.

In 1985, sorghum continued to have a significant price advantage over corn, although smaller than in 1984. Total imports by the region increased 5 percent in 1985, with a rising U.S. share. Barley imports last year were up less than 1 percent. U.S. sales were at a 6-year low, giving way to sizable increases from Australia and Canada.

### Soybeans

The region's 1985 soybean imports increased 10 percent to a record 7.25 million tons and are expected, like coarse grains, to increase again in 1986. After retrenching in 1984, the region's imports look like they are back on a growth path. A drop in vegetable oil prices and stepped-up demand for meal led crushers to favor soybeans toward the end of 1985. Imports from the United States increased, but not as rapidly as overall imports. The U.S. share dropped from 95 percent in 1984 to 91 percent in 1985 because of small but record imports from South America. The U.S. share is expected to rise in 1986 because of drought-reduced supplies in Brazil.

### Meats

East Asia imports large amounts of beef, pork, chicken, and lamb and mutton to supplement domestic supplies. Imports of ruminant meats are important relative to domestic production because of limited indigenous forage supplies. Imports of non-ruminant meat are less important because the region's pork and poultry meat industries are relatively efficient at maintaining large shares of domestic markets.

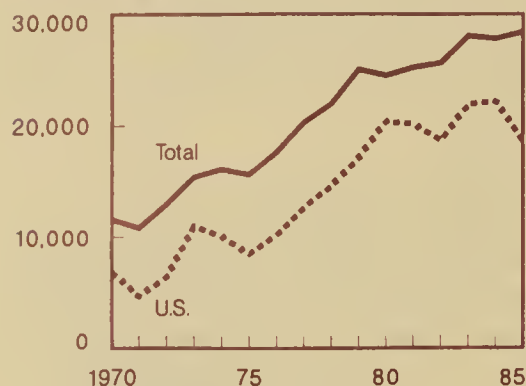
Imports of beef, pork, and poultry meat all declined in 1985. Imports of lamb and mutton, however, increased because of sharp price declines and their substitution for other meats in processed products. Total meat imports in 1986 should remain close to 1985 because of expanded indigenous production.



# East Asia Commodity Imports

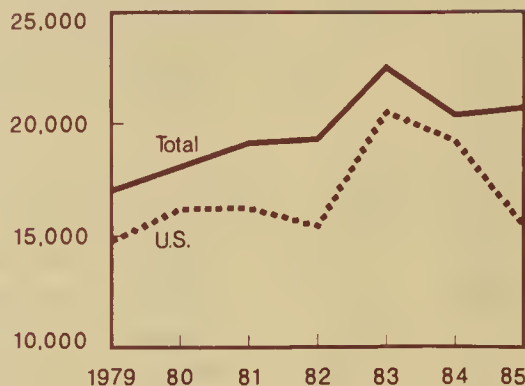
## Coarse Grains: Corn, Sorghum, and Barley

Thousand metric tons



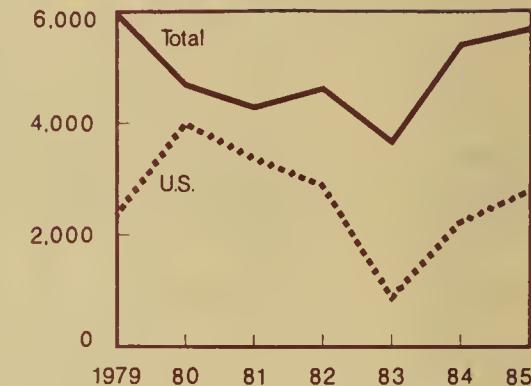
## Corn

Thousand metric tons



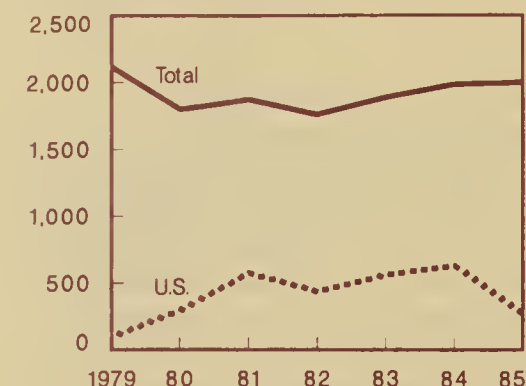
## Sorghum

Thousand metric tons



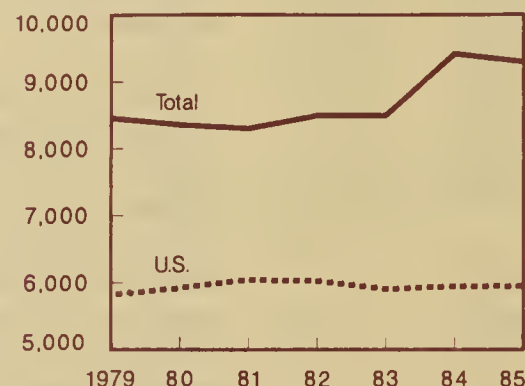
## Barley

Thousand metric tons



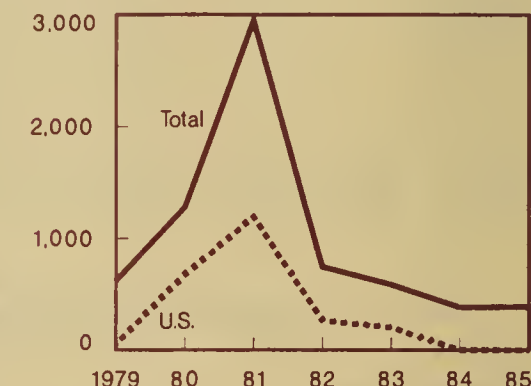
## Wheat

Thousand metric tons



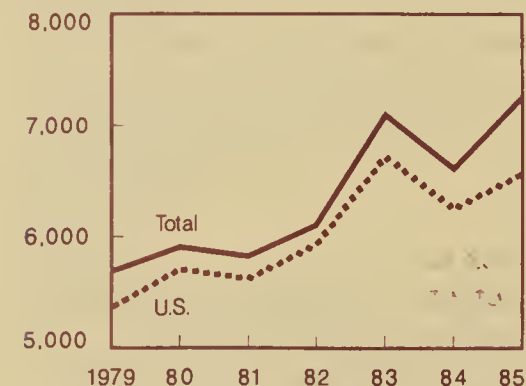
## Rice

Thousand metric tons



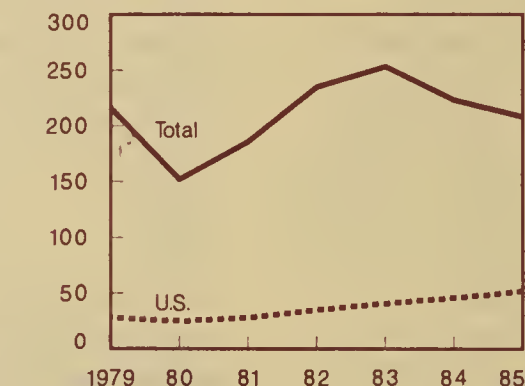
## Soybeans

Thousand metric tons



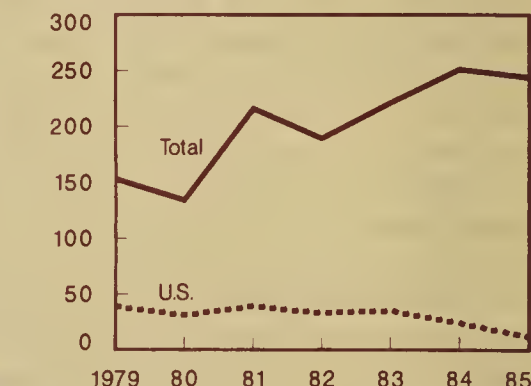
## Beef

Thousand metric tons



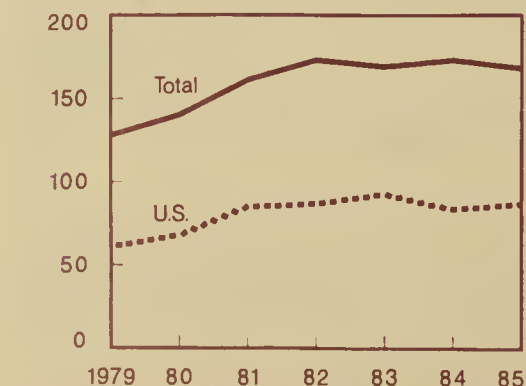
## Pork

Thousand metric tons



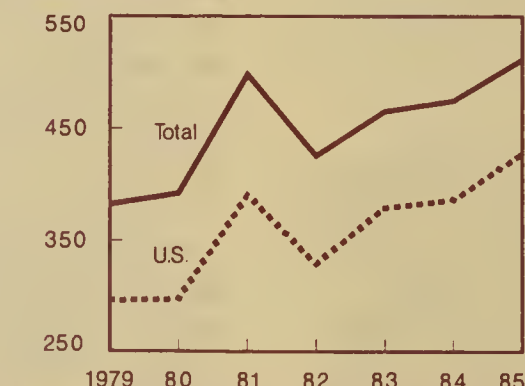
## Poultry

Thousand metric tons



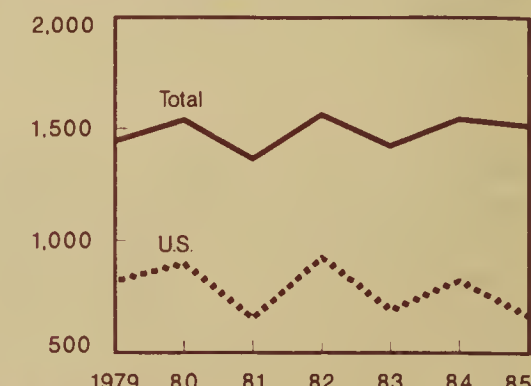
## Cattle Hides

Thousand metric tons



## Cotton

Thousand metric tons



The data are for calendar years and are aggregated from annual issues of: Government of Japan, Ministry of Finance, *Japan Exports and Imports: Commodity by Country*. Hong Kong Census and Statistics Department, *Hong Kong Trade Statistics*. Republic of Korea, Office of Customs Administrations, *Statistical Yearbook of Foreign Trade*. Republic of China, Inspectorate General of Customs, *The Trade of China*.

Beef imports declined for the second consecutive year in 1985, as Korea's more severe limits on imports more than offset scheduled increases in the Japanese market. Imports by Taiwan and Hong Kong increased slightly. The U.S. share improved from 21 percent in 1984 to 25 percent in 1985 on the strength of larger grain-fed sales to Japan as stipulated in a 1984 understanding. Japanese non-quota beef offal imports (mainly diaphragm beef, not classified as fresh, chilled, and frozen beef) showed impressive gains in 1985, with the U.S. share declining slightly to 82 percent. Imports in 1986 will expand because of policy-induced increases by Japan, but the regional total will still be below the 1983 record.

Pork and poultry meat imports also declined as local products became more competitive. Taiwan expanded pork exports for the second consecutive year and improved its position in the Japanese market. The U.S. share of the region's pork imports declined from 10 percent in 1984 to 5 percent in 1985, principally because of increased competition from Taiwanese and Danish pork in Japan. Performance in the poultry meat market was not as dismal. The U.S. share rose from 49 percent in 1984 to 52 percent last year, as poorer performance in the Japanese market resulting from stepped-up Thai and Brazilian competition was offset by a slightly better performance in the Hong Kong market.

#### *Food Grains*

Prospects for increased imports of food grains are not favorable. Per capita consumption of rice and wheat will either stabilize or decline over the next 10 years in most of the region's markets. High price policies for rice aimed at increasing self-sufficiency will reduce dependence on imports and increase the likelihood of exportable surpluses.

Rice: The region imported 390,000 tons of rice in 1985, about the same as the year before. Hong Kong is now the only significant importer in the region, with most of its supplies coming from the PRC and Thailand. Taiwan continued to export rice, although in smaller quantities, under a surplus disposal program initiated in 1984.

Wheat and Wheat Flour: East Asia's wheat imports declined about 1 percent to 9.3 million tons in 1985, and another decline is expected in 1986. 1984-85 imports were still well above the 8.4-million-ton average for 1976-83 because of large South Korean feed wheat imports from Australia. Food wheat imports in the region have been very stable over the past decade, reflecting relatively stable consumption and little competition from indigenous production, except in Japan.

The U.S. share of the region's wheat imports increased from 63 to 64 percent in 1985 and will increase again in 1986 as feed wheat becomes less of a factor.

Hong Kong is the region's only significant importer of wheat flour, with about 72,000 tons in 1985, down from 84,000 tons in 1984.

#### *Cotton*

East Asia is the world's most important regional market for raw cotton, although its competitive position in yarn spinning is increasingly challenged by other Asian countries. Total cotton imports declined 2 percent in 1985, with declines in the higher income importers, Japan and Hong Kong, more than offsetting increases in Taiwan and Korea. Import declines are forecast for all markets in 1986.

The U.S. share of East Asia's cotton imports suffered sharp erosion, from 53 percent in 1984 to 44 percent in 1985, because of high U.S. prices and inroads by the PRC and Pakistan. Further erosion is expected this year before changes in U.S. cotton policy will improve the U.S. share in 1986/87 (August-July). The PRC, Pakistan and Australia will continue to be leading competitors in this stable market.

#### *Cattle Hides*

East Asia imported 511,000 tons of cattle and equine hides in 1985, an increase of 8 percent over the previous year. The U.S. dominates this market, with a greater than 80-percent share. Reduced purchases by Japan in 1985 were more than offset by increases in the other East Asian markets. Most manufactured Japanese leather articles are marketed domestically, while those in the



other East Asian countries are exported. Taiwan, South Korea, and Hong Kong are leading U.S. suppliers of footwear and other leather articles. They expanded their shipments to the U.S. market in 1985, because of competitive prices and some concern about the possible imposition of trade restrictions toward the end of the year. [William T. Coyle (202) 786-1611]

## HONG KONG

A modest decline in some bulk commodity imports, along with cheaper food imports from the PRC--Hong Kong's principal supplier--caused the value of Hong Kong's agricultural imports to decline slightly in 1985. Raw cotton imports fell because of reduced textile trade with Hong Kong's major export markets. Imports of livestock products expanded, stimulated by consumers' desire to include more protein in their diets, and by the colony's large tourist trade. U.S. farm exports to Hong Kong declined to \$396 million in fiscal 1985.

Continued uncertainties facing the export-oriented textile sector will hold down the colony's consumption and imports of raw cotton in 1986. However, projected economic expansion should stimulate growth in demand for other farm imports. Contraction in the local livestock sector implies greater reliance on imports of live poultry and hogs from the PRC, and possibly greater purchases of frozen livestock products from other suppliers. U.S. farm exports to Hong Kong are forecast to decline further in fiscal 1986, mainly because of reduced cotton exports.

### *Hong Kong Economy Slows*

Hong Kong's expansion eased sharply in 1985, with real growth estimated at less than 1 percent, compared with 9.6 percent in 1984. The slowdown is attributed to a 5.8-percent decline in domestic exports--the greatest year-to-year decline recorded for the colony. The drop was due to slower economic growth in the United States (Hong Kong's leading trading partner) and other industrialized nations. Exports of electronic goods and textiles took the brunt of the decline. Some of the drop in domestic exports was offset by a 26-percent rise in re-exports (Hong Kong's shipments of goods made in other countries),

primarily to the PRC. Imports were up an anemic 3.6 percent because of weak consumer demand, resulting in the colony's first positive trade balance. Historically, Hong Kong has incurred trade deficits, as the colony must import much of what it consumes because of its small size and geographic isolation. Investment in plant and equipment fell about 3 percent in 1985, compared to 20-percent growth the previous year. In contrast to the slump in the overall economy, the property sector rebounded, aided by the improved political climate and much lower interest rates. Inflation continued on its downward trend, helped by lower import prices and a stable Hong Kong dollar.

Hong Kong's economy is expected to improve this year, as a result of renewed growth in exports due to some strengthening in overseas economies. The weaker Hong Kong dollar, which is linked to the U.S. currency, is also a factor. However, re-export demand is expected to be weak, primarily because of Chinese policy to conserve foreign exchange. The Hong Kong Government predicts real growth of 4.5 percent in 1986, with exports rising 7.5 percent and a faster pace for

Macroeconomic Indicators: Hong Kong

Item	Units	1984	1985	1986
<u>National Accounts:</u>				
Gross domestic prod.	Bil. HK\$	249.4	265.5	388.5
GDP in 1980 prices	do.	186.0	187.5	195.9
Growth in real GDP	Percent	9.6	.8	4.5
Share of GDP				
Exports	Percent	106.15	100.04	91.30
Gov't cons.	do.	6.75	6.72	6.66
Gross fix invest.	do.	25.87	25.83	25.61
Priv. cons.	do.	61.85	62.85	62.96
<u>Int'l Transact:</u>				
Total exp., f.o.b.	Mil. U.S. \$	28,390	30,148	NA
Total ag. exports	do.	227	251	NA
Total. Imp., c.i.f.	do.	28,637	29,669	NA
Total ag. imports	do.	3,591	3,566	NA
Bal. of tot. trade	do.	-247	479	NA
Bal. of ag. trade	do.	-3,364	-3,315	NA
Bal. with the U.S.	do.	6,295	6,474	NA
Bal. of ag. trade	do.	-569	-594	NA
Share of tot. to U.S.	Percent	33.2	30.8	NA
Ag. commodities	do.	22.0	21.9	NA
Share from U.S.	do.	10.9	9.5	NA
Ag. commodities	do.	17.2	17.0	NA
<u>Other Indicators:</u>				
Exchange rate	HKD/\$	7.82	7.82	7.80
CPI	1980=100	151.7	156.5	164.3
Growth in CPI	Percent	8.1	3.2	5.0
Population	Million	5.42	5.53	5.61
Population growth rate	Percent	2.07	2.03	1.45
Per capita GDP	U.S. \$	5,884	6,139	6,593

SOURCE: Hong Kong Government; Project Link.



investment. Inflation is likely to increase to around 5 percent, as a result of higher import prices due to a weaker Hong Kong dollar. The Government also foresees another budget surplus for the current fiscal year beginning April 1986.

### *Cotton Imports Decline*

Because of reduced textile trade in 1985 and slowing economies in Hong Kong's major export markets, raw cotton imports fell 19 percent from the previous year. The U.S. share of Hong Kong's cotton imports dropped sharply because of uncompetitive prices and strong competition from Pakistan and the PRC, which increased its market share from 49 to 55 percent in 1985. An estimated 40 percent of the Chinese cotton imported was re-exported, probably to Indonesia, South Korea, the Philippines, and the Democratic People's Republic of Korea.

Imports of both wheat and wheat flour declined in 1985, although the U.S. share of Hong Kong's wheat imports improved. Rice imports, supplied principally by Thailand and the PRC, were up slightly. Largely as a result of increased shipments of U.S. oranges, total citrus fruit imports in 1985 rose 12 percent from 1984's low levels. The United States is the major supplier of citrus fruit to Hong Kong. Tobacco imports were up slightly, and China remained the chief supplier.

As a revenue-raising measure, the duty on imported raw tobacco was raised to HK\$190 per kilogram from HK\$170, effective February 1986. The duty on imported cigarettes will remain unchanged at HK\$210. Duties on tobacco provide an important source of revenue for the Hong Kong Government. The higher duty on raw tobacco should benefit U.S. cigarette sales (\$172 million in 1985), but might jeopardize U.S. raw tobacco exports (\$34 million in 1985). The Hong Kong Government has not yet decided whether to implement its proposed ban on cigarette advertising.

### *Livestock Sector Adjusts*

In 1985, Hong Kong's small livestock and poultry industries continued to adjust to increased competition from the PRC, where both land and labor are cheaper, and to the 1983 ban on the use of growth hormones in

Hong Kong's imports of principal agricultural commodities and the U.S. share

Commodity	Volume		U.S. share	
	1984	1985	1984	1985
	1,000 tons		Percent	
Corn	223	250	--	--
Sorghum	4	5	--	--
Rice	366	378	--	--
Soybeans	25	25	--	--
Raw cotton	218	199	27	7
Wheat	123	119	80	89
Wheat flour	84	77	--	--
Sugar	134	146	--	--
Coffee beans	14	17	13	20
Pork	55	58	--	--
Beef	28	29	3	4
Broilers (incl. live)	69	96	42	39
Whole cattle hides	5	13	25	22
Tobacco	17	18	21	27
Citrus fruit	142	159	78	78
Bananas	33	35	--	--
Million dollars				
Total agricultural imports	3,591	3,566	17	17

-- None or negligible.

SOURCE: Hong Kong Census and Statistics Department, *Hong Kong Trade Statistics*, 1984 and 1985 December issues.

poultry raising. In response, some broiler producers have shifted to raising pigeons or swine. Broiler output, which contracted in 1983 and 1984, expanded slightly in 1985. Production of domestically-raised pork remained near 1984's high level. Hong Kong imports a considerable number of live hogs from the PRC, which are slaughtered locally for domestic consumption. Egg output was up marginally.

Consumption and imports of livestock products rose further in 1985. Beef imports were up slightly, with the PRC supplying 40 percent, and Brazil supplying 31 percent—up from 20 percent last year. Imports of fresh, chilled, and frozen pork, supplied mainly by the PRC, grew 5 percent. Live hog imports from the PRC totaled nearly 3 million head. Chicken imports (including live chicken) were up substantially, encouraged by cheaper-priced live birds from the PRC and continued strong demand. Hong Kong's imports of Chinese ducks, geese, pigeons, and quail also expanded, as their popularity continued to grow. The PRC, the United

States, and Japan are the major suppliers of poultry to Hong Kong, although imports from the EC have increased recently.

In December 1985, the Hong Kong Government announced that a nine-year plan to control animal waste pollution would start in mid-1987. The proposed plan includes a possible ban on livestock raising in urban areas and some parts of the New Territories, the rural area of Hong Kong, and strict controls on animal waste disposal. The new controls, if implemented, will force many hog and poultry producers out of business because of the increased costs involved. As local production declines, Hong Kong will have to rely on greater imports of live hogs and poultry from the PRC, and possibly increased imports of frozen pork and poultry from other sources.

### *Textile Sector Faces Uncertainty*

Uncertainty over possible increased textile trade restrictions adversely affected Hong Kong's textile industry in 1985. Most disturbingly, Hong Kong faced a maximum 30-percent cut in its textile exports to the United States under the proposed Jenkins Bill, which was vetoed by President Reagan in December 1985. Hong Kong textile manufacturers must now await the outcome of a renegotiated Multi-fiber Arrangement (MFA), that may call for stricter quota restrictions. The current MFA expires in July 1986.

Consumption and imports of raw cotton declined during the August 1984-July 1985 marketing year. Re-export demand during the same period declined as well. Conditions in the spinning industry generally deteriorated, with many mills operating below full capacity, and with little enthusiasm for investing in new technology or equipment. Spinners were hit with an influx of Chinese cotton yarn, which contributed to weak domestic yarn prices, despite efforts by the PRC to curb uncontrolled yarn exports.

Uncertainty over the outcome of the MFA and certain bilateral trade agreements will continue to stifle activity in Hong Kong's textile sector. As a result, consumption and imports of raw cotton are expected to decline further during 1985/86. The PRC will probably continue to dominate Hong Kong's

### U.S. agricultural exports to Hong Kong

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animal & animal prods.	63	71	75
Beef	6	5	4
Pork	1	1	1
Poultry meat	33	42	45
Cattle hds; whl.	2	3	4
Other	21	20	21
Grains & feeds	28	25	23
Wheat & prods.	18	15	13
Feeds & fodder	9	7	8
Other	1	3	2
Fruits & preps.	106	120	120
Nuts & preps.	3	4	4
Vegetables & preps.	31	31	32
Oilseeds & prods.	9	12	7
Veg. oils & waxes	9	11	7
Other	0	1	0
Tobacco, unmanuf.	20	30	26
Cotton, excl. linters	87	31	23
Other	60	72	72
TOTAL	407	396	382
1,000 tons			
Beef	1	1	1
Pork	1	1	1
Poultry meat	31	42	43
Cattle hds; whl. (1,000 no.)	60	104	100
Wheat & prods.	108	97	110
Veg. oil & waxes	8	11	12
Tobacco, unmanuf.	3	5	5
Cotton, excl. linters	65	22	16

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

cotton market, despite a reduced Chinese cotton crop in 1985.

### *U.S. Farm Exports Decline*

U.S. farm exports to Hong Kong in fiscal 1986 are estimated to decline about 4 percent to \$382 million, primarily because of reduced cotton exports. The U.S. share of Hong Kong's cotton market was seriously hurt last year by



increased imports of low-priced Chinese and Pakistani cotton. The PRC is expected to continue exporting significant amounts of cotton to Hong Kong in 1986 for both local use and re-export. On the other hand, U.S. sales of poultry meat, especially frozen whole chickens, are expected to expand further. [Lois A. Caplan (202) 786-1611]

## JAPAN

Japan's agricultural production expanded 1 percent in 1985, helped by a second consecutive bumper rice harvest. Japan harvested an excellent wheat crop as well, but barley output declined. Livestock output grew a larger-than-expected 5 percent, reflecting, in part, distressed slaughter of hogs which boosted pork output, and strong gains in poultry production. The higher-valued yen and lower grain and oilseed prices helped to lower livestock feed costs during the year. Formula feed production increased about 3 percent, stimulated by growth in the livestock sector. Consumption and imports of coarse grain expanded as well. The U.S. share of Japan's coarse grain imports fell to 65 percent, mainly because of increased purchases of corn from the PRC and Argentina.

Livestock product imports declined 5 percent in value from the previous year. Beef and veal imports rose to 151,000 tons, as a result of increased quota levels. However, pork imports fell 3 percent because of increases in domestic production. Poultry meat imports were off slightly. While the United States continued to gain market share in the Japanese beef market, the U.S. share of Japan's pork and poultry imports deteriorated further, as a result of strong competition.

Japan's rice and wheat crops are expected to decline in 1986, as more paddy area is diverted to alternative crops and yields return to normal. Modest expansion in livestock production and consumption will support growth in consumption and imports of coarse grain. Improved profit margins for livestock producers, if sustained, should promote expansion in the livestock sector, but slower economic growth could work in the opposite direction, depressing demand for livestock products. U.S. farm exports to Japan in fiscal 1986 are forecast to drop to \$5 billion, the lowest since fiscal 1979. Lower commodity

prices and declining U.S. market shares for coarse grain and cotton are chiefly responsible for the drop in value.

## Yen Strengthens, Economy Slows

Japan's economy grew an estimated 4.2 percent in 1985 compared with 5.8 percent the year before, reflecting a slowdown in the economy of the United States, Japan's principal overseas market. Nevertheless, Japan's current account balance showed a record surplus of \$49.3 billion, on the strength of a 3.4 percent rise in exports and a 5.1 percent decline in imports resulting from the sharp decline in crude oil prices. The yen's rise against the dollar during the October-December period helped boost the dollar value of yen-denominated exports, which comprised about 40 percent of total shipments.

Japan posted a record trade surplus with the United States of \$39.5 billion, owing largely to a 25-percent increase in the value of automobile exports, and it gained a record

Macroeconomic indicators: Japan

Item	Units	1984	1985	1986
<u>National Accounts:</u>				
Gross domestic prod.	Tril. yen	295.7	318.6	330.1
GDP at 1980 prices	do.	275.4	287.0	295.3
Growth in real GDP	Percent	5.8	4.2	2.9
Share of GDP				
Exports	Percent	16.78	18.02	14.68
Gov't cons.	do.	9.87	10.49	10.55
Gross fix invest.	do.	28.29	27.59	27.36
Priv. cons.	do.	59.09	57.25	57.38
<u>Int'l Transact:</u>				
Merchand. exp., f.o.b.	Mill. U.S. \$	168,290	173,928	189,100
Total ag. exports	do.	1,024	893	942
Merchand. imp., c.i.f.	do.	136,503	129,503	136,300
Total ag. imports	do.	18,714	16,833	17,085
Bal. of trade I/ Bal. of ag. trade	do.	31,787	44,425	52,800
	do.	-17,690	-15,940	-16,143
Trade bal./ the U.S.	do.	33,075	39,511	40,816
Bal. of ag. trade/ the U.S.	do.	-7,532	-6,642	-6,522
Share to U.S. Ag. commodities	Percent	35	37	36
	do.	15	14	15
Share from U.S. Ag. commodities	do.	20	20	20
	do.	41	40	39
<u>Other Indicators:</u>				
Exchange rate Yen/\$		237.5	238.5	178.9
CPI 1980=100		112.1	114.4	114.7
Growth in CPI	Percent	2.3	2.1	.5
Population	Million	120.0	120.7	121.5
Population growth rate	Percent	.59	.58	.66
Per capita GNP	U.S. \$	10,252	11,696	11,430

SOURCE: IMF, International Financial Statistics; Wharton; Project Link; Japan Economic Research Center; ERS estimates.



surplus with China of \$6 billion, up from \$1.3 billion in 1984. Inflation remained low because of declining raw material prices, especially for crude oil, and the strengthening yen. Housing starts were up 4.1 percent in 1985, exceeding the 1.2 million level for the first time in 5 years.

In September 1985, finance ministers from Japan, the United States, France, West Germany, and Britain agreed to implement policies that would lower the value of the dollar. Since then, the dollar has weakened considerably against the yen, declining about 30 percent, with the yen-dollar exchange rate near 180 yen to the dollar at the end of March. Shortly after the September Group of Five meeting, Japan's central bank, the Bank of Japan, let short-term interest rates rise temporarily, which narrowed the gap in interest rates between the United States and Japan and helped to bolster the yen. In January 1986, the Bank of Japan reduced the official discount rate from 5.0 to 4.5 percent in an attempt to stimulate the domestic economy, and in March it announced a further cut to 4.0 percent as part of a coordinated effort to reduce interest rates in the Group of Five countries.

The Government of Japan also decided to sketch out a new package of reflationary measures designed to lessen the adverse impact of the higher-valued yen on the Japanese economy, including stepped-up public works spending. This followed a previous package of domestic demand-stimulating measures unveiled in October 1985 to reduce the nation's growing trade surplus, and a market-opening plan announced in July 1985 to counter mounting criticism by Japan's foreign trading partners. As part of the July trade package, Japan eliminated or reduced tariffs on more than 1,800 products, many of interest to Southeast Asian countries, including boneless chicken, fresh bananas, and palm oil.

#### *Sectoral Talks Head Trade Policy Agenda*

During 1985, the United States and Japan conducted a series of talks focusing on four sectors where U.S. products are considered potentially competitive in the Japanese market: telecommunications, electronics, pharmaceuticals and medical equipment, and forest products. In a joint meeting held in

January 1986, the United States and Japan agreed that important progress had been achieved as a result of these sectoral discussions.

In the forest products area, Japan agreed to reduce tariffs on softwood plywood to 12.5 percent in April 1987, and 10 percent in April 1988. Tariffs on hardwood plywood, supplied mainly by Southeast Asian countries, will also be reduced in two stages to 15 or 10 percent, depending on thickness. Japan's imports of all plywood were valued at \$57 million in 1985, with 5 percent from the United States. Japan also agreed to lower tariffs on paper products in stages by 20 percent each year, starting in January 1986.

In other agricultural trade areas, the United States resolved its dispute over Japan's restrictions on imported leather and leather products in December 1985, receiving a compensation package worth an estimated \$260 million in Japanese reductions or elimination of tariffs on manufactured products, and higher duties on U.S. imports of Japanese leather items. In September 1985, the United States initiated a Section 301 investigation of Japan's tobacco trade practices, which U.S. firms believe restrict sales of foreign tobacco products. The United States holds a 2.2 percent-share in the Japanese cigarette market, valued at about \$10 billion.

U.S.-Japan consultations on Japanese quota restrictions on 12 categories of farm products were held in March 1986, but no agreement was reached to expand or liberalize imports. The current import framework for these items, which was established under a provisional U.S.-Japan agreement in April 1984, expired in April. The United States asked for complete liberalization of all 12 categories during consultations in December 1985.

#### *Strong Yen Will Put Drag on Economy*

Real economic growth will decelerate in Japanese fiscal year (JFY) 1986 (April 1986-March 1987) to around 4.0 percent, down from an estimated 4.2 percent in fiscal 1985, according to the Government's official forecast. A majority of private-sector economists, however, foresee even slower growth at around 3.0 percent, as exports

decline because of the higher-valued yen. The Government expects domestic demand to lead growth, rather than exports as in previous years, projecting a 3.6 percent rise in personal consumption and a 7.5 percent increase in business capital spending.

However, such strong expansion in capital spending appears unlikely given slower projected growth in corporate earnings, and a planned investment slowdown by most manufacturing sectors due to the worsening export climate for their products. The Government predicts low inflation at both the consumer and wholesale levels because of lower crude oil prices and the stronger yen. Because of the reduced price of imported oil, and since it may take 6 months or more before exports, measured in dollars, decline, Japan's trade surplus in 1986 is unlikely to decline and may even grow from last year.

#### *Another Good Rice Harvest Adds to Stocks*

Japan had a good rice harvest in 1985 for the second year in a row, after 4 years of poor crops. Owing to slightly increased growing area and favorable weather, production reached 10.61 million tons, down slightly from last year's bumper harvest of 10.81 million. The good outturn means that Japan will accomplish its goal of replenishing stocks to between 1.2-1.5 million tons at the end of the current marketing year (November 1985/October 1986), 1 year earlier than planned. Larger rice crops for the past two years, termination of the surplus disposal program, a steady decline in consumption, and the emergency importation of 135,000 tons from South Korea in 1984 helped to boost Japanese rice stocks, which were critically low at the end of 1983/84 (December-November).

The Government targeted 518,000 hectares of rice area for diversion to alternative crops in 1985, slightly smaller than the area set in 1984. The planned diversion area will be upped to 544,000 hectares in 1986 because stocks are now adequate.

Producer rice prices for the 1985 crop were frozen at the 1984 level of 311,133 yen per ton (\$1,729 at U.S.\$1/180 yen), despite strong pressure for a price hike by farm groups, reflecting a tight agriculture budget. The Government is unlikely to grant a

significant price increase in 1986 because farm incomes have improved as a result of abundant crops the past two years, and the Government's Food Agency does not want to pay for managing large rice stocks, such as accumulated during the late 1970's. The consumer rice price (Government resale price to wholesalers) was raised 1.48 percent, effective February 1986, to 309,967 yen per ton (\$1,722 at U.S. \$1/180 yen), which narrowed the difference between producer and consumer prices to less than 1 percent.

Wheat production in 1985 rose to 874,000 tons, 18 percent above last year's bumper crop. The excellent harvest was the result of an increase in both area and yields in Hokkaido, a major wheat-producing region. Barley output declined 5 percent to 378,000 tons because of a decline in area and yields for two-row barley, used for brewing, and naked barley. Growing area for both wheat and barley is likely to increase slightly in 1986 because of the planned expansion in diversion area.

Wheat consumption declined marginally in the July 1984/June 1985 marketing year,

Agricultural production in Japan

Commodity	1983	1984	1985	1985/84
	1,000 tons			Percent
Rice	9,433	10,809	10,612	98
Pork	1,429	1,424	1,531	108
Vegetables	13,355	13,500	13,750	102
Eggs	2,085	2,130	2,151	101
Milk	7,042	7,138	7,359	103
Poultry meat	1,143	1,183	1,238	105
Beef and veal	495	535	555	104
Citrus fruit	3,624	2,672	3,289	123
Tobacco	137	135	121	90
Indices of production	1976-78 = 100			
Crops	90	96	96	100
Livestock	125	127	133	105
Total agriculture	94	100	101	101
Per capita agriculture	90	94	95	101

NOTE: Commodities shown are in order of importance in 1985 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1975-84 and Foreign Agricultural Service, USDA, Annual Situation Report for Japan.



Farm and consumer food prices  
in Japan

Commodity	1983	1984	1985	1985/ 1984
	Yen/kilogram			Percent
Farm prices				
Rice	304	311	311	100
Wheat	185	185	185	100
Barley	167	167	167	100
Eggs	241	231	258	112
Pork	440	432	370	86
Milk	100	100	100	100
Poultry	257	252	234	93
Beef	1,014	1,002	1,042	104
Tobacco	1,737	1,827	NA	--
Citrus	80	167	NA	--
Potatoes	65	67	56	84
Onions	83	97	27	28
Tea	1,489	1,728	1,189	69
1980 = 100				
Consumer price indices				
Food	109	113	114	101
Meats	107	108	107	99
Fish	110	111	113	102
Fruits	107	114	128	112
Vegetables	104	110	107	97

SOURCES: Foreign Agricultural Service, USDA, Agricultural Situation Report; Japan's Ministry of Agriculture, Forestry and Fisheries, Monthly Statistics; and Management and Coordination Agency, Monthly Statistics of Japan.

reflecting stable demand for most wheat products. Annual per capita wheat consumption appears to have leveled off at about 32 kilograms. The Ministry of Education recently revised standards for the Japanese school lunch program, a major factor in westernizing the postwar Japanese diet, that could result in decreased consumption of bread and greater consumption of rice.

Producer prices for wheat and barley were left unchanged in 1985 for the third straight year. With the consumer wheat price (Government resale price to wholesalers) left at 68,917 yen per ton (\$383 per ton at U.S. \$1/180 yen), unchanged since 1983, there has been no reduction in the large consumer subsidy on wheat, which is partially financed by the Food Agency's gain on lower-priced imported wheat. Producer wheat prices are currently 184,867 yen per ton (\$1,027 per ton at U.S. \$1/180 yen).

The Canadian Wheat Board renewed its annual agreement with the Food Agency to supply Japan with 1.2 million tons of wheat in 1986, 100,000 less than agreed in 1985. In a similar arrangement, Australia promised to supply at least 1 million tons of wheat to Japan in 1986, compared with 900,000 last year. Japan has similar purchasing arrangements with Canada and Australia for barley.

### *Livestock Production Expands*

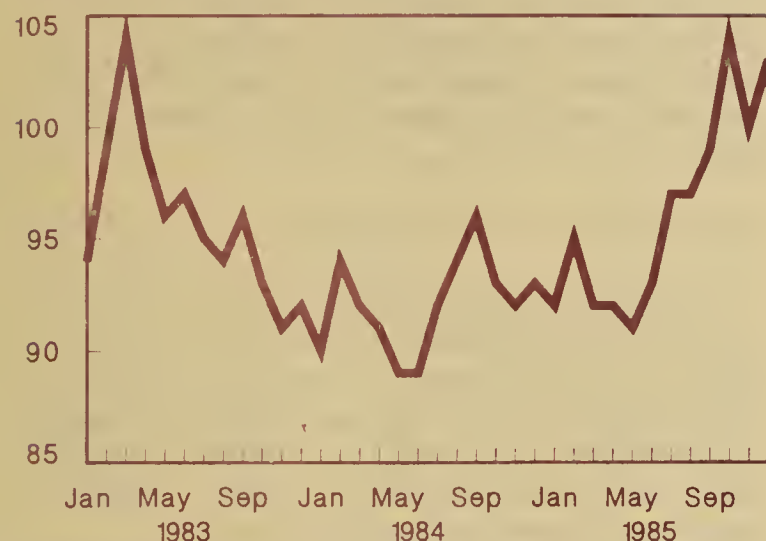
Japanese livestock production expanded 5 percent in 1985. Beef and veal output rose 4 percent, as a result of continued larger-than-expected slaughter of Wagyu cattle (the native breed). Pork production was up nearly 8 percent, mainly because of increased culling of sows by producers to limit herd expansion and improve weak market prices. After July 1985, producer hog prices began to decline rapidly, and in November, the Ministry of Agriculture, Forestry and Fisheries (MAFF) decided to implement an intervention stock program for pork in an effort to hold up prices, which had fallen below the floor support level. Broiler output rose nearly 5 percent, stimulated by strong demand and cheaper feed prices. Growth in egg production was marginal, apparently curtailed by intensified MAFF pressure to limit expansion in egg output in the face of a depressed market. However, producer egg prices have shown an upward trend since May 1985. Milk output was up 3 percent, largely owing to increased productivity per cow.

Formula feed production grew 3 percent during January–November 1985 over the same period in 1984, reflecting growing feed demand from the livestock sector. Output of beef and dairy feed was up less than 1 percent, as farmers took advantage of greater forage production in 1985; broiler feed was up 4 percent; and swine feed, 8 percent. Output of feed for layers declined 2 percent. The yen's appreciation is expected to encourage moderate growth in Japanese formula feed production this year.

Because of the strengthening yen and lower grain and oilseed prices, livestock feed prices during 1985 were lower than in 1984. Zennoh, Japan's largest feed manufacturer, lowered feed prices 4.1 percent for

## Japan's Livestock Product Price/Feed Price Index

1980=100



Source: Japanese Ministry of Agriculture, Forestry and Fisheries.

January- June 1986 deliveries, to 62,500 yen per ton (\$347 at U.S.\$1/180 yen). Rising livestock product prices, particularly for beef and eggs, have combined with declining feed prices to bolster profit margins for Japanese livestock producers since May 1985.

Consumption of coarse grain increased about 2 percent in 1985, with imports totaling 21.1 million tons. Sorghum continued to be favorably priced relative to corn, and use increased 7 percent. Some 375,000 tons of competitively-priced Thai tapioca displaced sorghum in formula feed in 1985, and a smaller amount may cut into sorghum use this year. Tapioca must be combined with soybean meal to provide a similar nutritional value to sorghum.

### U.S. Share of Japan's Farm Imports Declines

The U.S. share of Japan's coarse grain imports fell to 65 percent in 1985 from 77 percent the year before. Although purchases of U.S. sorghum were up, Japan's imports of U.S. corn and barley dropped significantly. The U.S. share of Japanese corn imports plunged to 77 percent from last year's unusually large 97 percent, as a result of substantially increased purchases from the PRC (2.6 million tons) and greater purchases from Argentina (466,000 tons). The United States captured 54 percent of Japan's sorghum imports, as a result of ample U.S. supplies, while Argentina's share declined to 26 percent. The U.S. share of Japan's barley imports fell to 8 percent from 26 percent the

previous year because U.S. barley was less competitive than Australian and Canadian barley.

The value of Japan's livestock product imports declined about 5 percent in 1985, primarily reflecting more competitive domestic prices. Beef and veal imports (product weight) were up 3 percent to 151,000 tons, as a result of increased import quota levels. Pork imports declined about 3 percent from last year's record level to 190,000 tons because of the surge in domestic production. Poultry meat imports slipped only slightly to 105,000 tons despite growth in domestic production, reflecting continued strong demand. Imports of mutton and lamb, mainly from New Zealand and Australia, rose to 79,000 tons from 75,000 the year before. Dairy product imports, worth \$267 million, were up 3 percent. The volume of Japan's tallow imports remained about the same in 1985, while cattle hide imports declined 7 percent.

The U.S. share of Japan's beef and veal imports increased to 31 percent in 1985 from

Japan's imports of principal agricultural commodities and the U.S. share

Commodity	Volume		U.S. share	
	1984	1985	1984	1985
	1,000 tons		Percent	
Corn	14,170	14,225	97	77
Sorghum	4,478	4,793	42	54
Barley	1,567	1,661	26	8
Soybeans	4,515	4,910	93	88
Raw cotton	708	681	53	41
Wheat	5,978	5,510	57	59
Sugar	1,836	1,916	--	--
Coffee beans	223	231	--	--
Pork	196	190	12	6
Poultry meat	107	105	50	46
Whole cattle hides	219	204	86	88
Tobacco	75	61	61	64
Citrus fruit	370	346	97	96
Bananas	682	680	--	--
Million dollars				
Total agricultural imports	18,714	16,833	41	40

-- None or negligible.

SOURCE: Japan's Ministry of Finance, Japan Exports and Imports: Commodity by Country, 1984 and 1985 December issues.



29 percent the year before, in line with the scheduled expansion of grain-fed beef imports under the August 1984 U.S.-Japan understanding on beef. In contrast, the U.S. share of the Japanese pork market eroded further to 6 percent from 12 percent in 1984, hurt by the strong dollar and high prices. Denmark held on to its dominant position, despite intense competition from Taiwan, which gained a 36-percent share of the market, up from 26 percent the year before.

The U.S. share of Japan's poultry meat imports edged down to 46 percent, although the United States remained the major supplier. Thailand's share rose to 35 percent from 29 percent in 1984. Brazil has gained a foothold in the Japanese poultry market, garnering 13 percent of the market in 1985, up from 9 percent in 1984, and less than 1 percent in 1983. The United States continued to be a marginal supplier of dairy products to Japan.

#### *Soybean Crushing Declines Slightly*

Soybean crushing contracted slightly during October 1984-September 1985 to 3.79 million tons, from 3.83 million tons the year before, mainly because of increased use of competitively-priced rapeseed meal in livestock feed. Rapeseed crushings rose 15 percent to 1.44 million tons, as crushers tried to work down soymeal stocks, while supplying sufficient vegetable oil to the market. The proportion of soymeal in formula feed production increased slightly to 10.2 percent in 1984/85, while that for rapeseed meal reached 2 percent, up from 1.7 percent the previous year. Soybean oil consumption increased only marginally during 1984/85, as rapeseed oil use grew 12 percent due to very competitive prices.

Soybean imports rose 9 percent to 4.9 million tons during calendar 1985. The U.S. share declined to 88 percent, mainly as a result of record purchases from Brazil (221,000 tons). Imports of Chinese soybeans, used primarily for food, fell off slightly. Soybean meal imports reached 134,000 tons in 1985, up modestly from last year, as still-high stocks prevented a significant increase in imports. Most of Japan's soymeal imports came from Brazil (66 percent) and the PRC (31 percent). Imports of soybean oil dropped

to 1,500 tons in 1985 from 9,000 tons the year before, because of a jump in domestic production of rapeseed oil. Rapeseed imports in 1985, supplied chiefly by Canada, rose 13 percent to 1.5 million tons. Imports of rapeseed meal climbed 34 percent to 104,000 tons, as a result of greater use in livestock feed.

#### *Beef and Citrus Trade Expands*

Japanese imports of all beef products (quota and non-quota) in 1985 were up 6 percent in volume and 12 percent in value. The expansion in beef trade reflects Japan's commitment to increase beef imports under quota, as agreed to in the 1984 U.S.-Japan understanding on beef and citrus, and continued growth in Japanese imports of beef offals, which fall outside quota restrictions. Beef offals are an important component of U.S. beef trade with Japan, accounting for about 60 percent of value in 1985.

Japanese imports of fresh citrus fruit in 1985 declined 6 percent in volume, but rose 3 percent in value from the previous year. Fresh orange imports increased 25 percent, more than doubling the 11,000-ton quota increase agreed to in the 1984 U.S.-Japan understanding. However, imports of fresh grapefruit were down substantially (23 percent), and imports of lemons and limes, supplied mainly by the United States, slipped 7 percent. Japanese imports of grapefruit and lemons were liberalized in 1971 and 1964, respectively, but imports of these citrus fruits, which grew rapidly after liberalization, have leveled off since the mid-seventies.

The United States supplies practically all of Japan's fresh orange imports, although Japan has imported small quantities from other suppliers. High export (f.o.b.) prices in the 1984/85 season hurt U.S. sales of grapefruit to Japan in 1985. A high quality crop and the weaker dollar is boosting sales to Japan in the 1985/86 season. The United States supplies around 90 percent of Japan's grapefruit imports.

Japan's citrus juice (orange and grapefruit) imports also expanded in 1985. Orange juice imports, scheduled to increase 500 tons annually, shot up five-fold in value. As a result of a reduced Japanese mandarin orange harvest in the 1984/85 season, which

Japan's imports of selected beef and citrus products and the U.S. share

Commodity	Volume		U.S. share	
	1984	1985	1984	1985
	1,000 tons		Percent	
Beef & veal, fr., chilled, fzn. (under quota)	146	151	29	31
Beef offals	65	74	84	82
Fresh citrus:				
Oranges	89	112	99	99
Lemons & limes	123	114	99	98
Grapefruit	158	121	95	92
	Million dollars			
Quota items:				
Beef & veal, fr., chilled, fzn.	454.2	464.6	34	39
Oranges	82.3	91.2	99	99
Orange juice	7.3	40.6	29	9
Grapefruit juice	8.2	12.1	90	84
Total	552.0	608.5	44	47

SOURCE: Japan's Ministry of Finance, Japan Exports and Imports: Commodity by Country, 1984 and 1985 December issues.

caused a shortage of fruit for processing, MAFF issued an emergency orange juice import quota of 5,000 tons for fiscal 1985, bringing the total orange juice quota to 12,500 tons. The import quota for fiscal 1986 will be scaled back to the scheduled 8,000 tons. The value of Japan's grapefruit juice imports, which were essentially liberalized in 1984 (in preparation for full liberalization in Japan fiscal 1986, Japan issued licenses to meet any amount of domestic demand in Japan fiscal 1984 and 1985), was up nearly 50 percent in 1985. The U.S. share of Japan's orange juice imports has declined sharply since 1970, with Brazil capturing most of this trade. However, the United States has maintained a predominant share of the Japanese grapefruit juice market.

### Outlook

According to the Government's rice production plan, rice output will decline about 5 percent in 1986. Nevertheless, stocks at the end of the 1986/87 marketing year will be

above the targeted level, as a result of abundant harvests in 1984 and 1985 and declining per capita consumption. Given normal yields, wheat output is also likely to decline, despite a probable expansion in area due to the increase in targeted diversion area.

Gains in livestock production will be mixed. Increased culling of sows and heavy slaughter of Wagyu cattle in 1985 will mean reduced supplies for slaughter and a decline in pork and beef output this year. Conversely, broiler production is expected to increase about 4 percent, while egg output will expand about 1 percent. Milk production is estimated to be up 2.5 percent, indicating increased output of processed milk products, given stable fluid milk consumption.

Slower economic growth in 1986 could dampen demand for livestock products, except perhaps for cheaper meat items. Imports of beef and veal are expected to increase in line with the 1984 U.S.-Japan understanding on beef. However, pork imports are forecast to decline considerably, as a result of larger-than-normal stocks and little anticipated growth in consumption. Imports of poultry meat are expected to be up substantially, stimulated by continued strong demand. Japan's tallow imports are projected to contract in 1986, owing to the lack of growth in Japan's soap industry, the primary user. Imports of hides and skins are also forecast to decline because of stagnation in the leather goods industry. Since quota restrictions on wet blue hides were removed, and the duty reduced from 15 percent to zero effective April 1985, it is foreseeable that wet blue hide imports could increase at the expense of raw hides and skins. The United States is the principal supplier of Japan's imports of raw hides and skins, and competes with Australia, New Zealand, and Pakistan in the wet blue market.

Formula feed outturn is expected to expand modestly, following growth in the livestock sector. Consumption and imports of coarse grain will rise slightly. Sorghum's favorable price relationship vis-a-vis corn is expected to continue during the year. Grain substitutes, such as tapioca, corn gluten, and corn gluten meal, are likely to continue to displace a small percentage of coarse grain in formula feed production.



Soybean crushing is projected to increase about 5 percent because of growth in formula feed output and lower soymeal stocks. Soymeal use in formula feed is expected to increase slightly. Imports of soybeans and soybean meal are also forecast to be up. On the other hand, sluggish growth in vegetable oil consumption will cause lower rapeseed crushings and a decline in rapeseed imports. Any growth in oil demand is likely to be met by increased imports of palm oil, which, as of January 1986, can be imported duty-free. The duty on soybean oil and rapeseed oil remains at 17 yen per kilogram.

U.S. farm exports to Japan are forecast to drop to \$5 billion in fiscal 1986, the lowest level since fiscal 1979. Lower commodity prices and declining U.S. market shares for coarse grain and cotton are mainly responsible. On the other hand, U.S. soybean exports are expected to increase because of drought-reduced supplies in Brazil. U.S. sales of pork and poultry should improve toward the end of the year, aided by a weaker dollar, although the United States continues to face keen competition in these markets.

Despite low U.S. grain prices and a weaker dollar, the United States is facing intense competition in the Japanese coarse grain market from the PRC, South Africa, and Argentina. Japanese importers have contracted to purchase 2.4-2.5 million tons of Chinese corn between May 1986 and April 1987. This follows a similar purchase agreement involving about 2 million tons for the same period last year. Japan is also likely to buy a large volume of South African corn during April 1986-March 1987 because of favorable prices and high starch content. In addition, Japan is expected to purchase about 1 million tons from Argentina.

The United States is also meeting stiff competition in the Japanese cotton market. U.S. cotton exports are forecast to fall sharply, and the U.S. share could drop as low as 20 percent this year, from nearly 50 percent in fiscal 1985. Japan has significantly increased its purchases of Chinese cotton, and has stepped up imports from other suppliers, such as Australia and Pakistan. Uncompetitive prices for U.S. cotton are chiefly responsible for declining U.S. sales. [Lois A. Caplan (202) 786-1611]

## U.S. agricultural exports to Japan

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animal & animal prods.	971	910	940
Beef	308	353	368
Pork	84	27	58
Poultry meat	87	64	63
Tallow, inedible	23	16	17
Cattle hds; whole	292	277	260
Other	177	173	174
Grains & feeds	3,094	2,336	2,033
Wheat & products	557	498	394
Rice	1	0	0
Feed grains	2,332	1,659	1,459
Feeds & fodder	181	162	160
Fruits & preparations	289	306	315
Nuts & preparations	72	72	70
Vegetables & preps.	142	135	125
Oilseeds & products	1,348	1,001	930
Soybeans	1,282	945	870
Veg. oils & waxes	42	35	36
Oilcake and meal	2	1	3
Tobacco, unmanufactured	312	326	294
Cotton, excl. linters	590	461	196
Other	117	116	115
TOTAL	6,935	5,663	5,018
1,000 tons			
Beef	76	82	85
Pork	26	8	15
Poultry meat	56	48	50
Tallow, inedible	48	35	40
Cattle hds; whole (1,000 no.)	7,215	6,908	7,000
Wheat & products	3,449	3,255	3,200
Feed grains	15,742	13,687	13,820
Soybeans	4,234	4,115	4,350
Veg. oil & waxes	49	40	42
Oilcake and meal	8	4	15
Tobacco, unmanufactured	46	47	45
Cotton, excl. linters	354	302	130

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

## SOUTH KOREA

South Korea experienced slower economic growth in 1985 because of poor export

performance. However, reduced imports improved the trade and current account deficits. Government targets for 1986 include 7 percent growth, inflation below 3 percent, and a balanced current account.

Import quantities of most major agricultural commodities increased, but lower international commodity prices reduced Korea's agricultural import bill 18 percent in 1985. The U.S. share of Korea's agricultural import market fell to 49 percent from 54 percent in 1984, as price competition from other suppliers cut into U.S. sales of feed grain and cotton. U.S. agricultural exports to South Korea are forecast to decline to \$1.3 billion in FY 86, 10 percent below the previous year, because of continued depressed commodity prices, competition for market share in feed grain and cotton, and South Korean trade policies that discourage imports of beef and feedstuffs.

Agricultural output in South Korea increased only 1 percent in 1985, with growth mainly in livestock and fruit production. Rice production at 5.62 million tons exceeded the official production target, but was 1 percent below last year's output. Heavy rains during harvest caused quality problems. Low beef prices and large inventories led to restrictions of beef and cattle imports in 1986 and other measures to bolster prices.

Mounting political unrest may affect the South Korean economy during 1986. As in 1985, labor disruptions are occurring along with increasing pressure from students and members of the main opposition party to adopt protectionist trade measures. The South Korean Government has not responded to U.S. and other requests for relaxation of import barriers affecting agricultural commodities. Furthermore, a new 3-year policy package, approved in February 1986 to improve rural conditions relating to credit availability, infrastructure and land use, may be paid for in part by a surtax on imports including agricultural commodities.

#### *Income Growth Slows in 1985; Improvement Expected in 1986*

South Korea's real income growth slowed to 5.0 percent in 1985, falling short of the Government's 7.5 percent target and the 7.9 percent growth rate achieved in 1984. Weak

U.S. demand for Korean products brought merchandise export growth to a virtual standstill, compared to 1984's 13.4 percent increase. Inflation remained under control at less than 3 percent. Reduced demand for construction services by Middle East nations substantially reduced service exports. However, the effect of poor export performance on income growth was partially offset on the import side. Government monetary and fiscal restraint and economic slack held down import volume, which combined with lower prices for imported oil, raw materials, and agricultural commodities to reduce merchandise imports nearly \$1 billion. The trade deficit declined to only \$30 million from \$1.04 billion in 1984 as a result.

Reduced imports from the United States raised South Korea's bilateral trade surplus to a record \$3.9 billion, while its bilateral deficit with Japan remained at \$3 billion. Lower international interest rates helped hold down debt service payments despite a \$3.6 billion increase in foreign debt to \$46.7 billion. The net result of these changes was a drop in the current account deficit to \$882 million, more than a third lower than in 1984.

Korea's debt service ratio rose from 20 to 22 percent of goods and service exports during 1985, reflecting the temporary decline in export earnings and increased principal repayment on long-term debt. The ratio is expected to remain roughly the same in 1986. In spite of faster-than-desired growth in external debt and reduced exports, the drop in the current account deficit helped maintain the international financial community's strong confidence in South Korea.

Official economic targets for 1986 include real economic growth of 7 percent, an inflation rate below 3 percent, slow growth in foreign debt, and a balanced current account with a trade surplus of \$900 million. Most private forecasters have been somewhat less optimistic about income growth, suggesting real growth of between 5.5 and 6.5 percent; most also foresee some deterioration in the balance of payments.

However, recent shifts in exchange rates and world commodity prices have been working strongly in Korea's favor, so that the official targets may be realized after all. The recent strong appreciation of the yen against



## Macroeconomic indicators: South Korea

Item	Units	1984	1985(e)	1986(p)
<b>National Accounts:</b>				
Gross national prod.	Mil. \$	81,116	81,490	88,239
GNP in 1980 prices	do.	80,882	84,765	89,431
Growth in real GNP	Percent	7.5	4.8	5.5
Share of GNP				
Exports of goods & ser.	Percent	38.5	38.0	38.0
Gov't cons.	do.	10.9	9.6	9.6
Gross fix invest.	do.	30.9	31.8	32.0
Priv. cons.	do.	61.8	61.0	60.2
<b>Int'l Transact:</b>				
Tot. merchand. exp., f.o.b.	Mil. U.S. \$	26,355	26,405	29,575
Total ag. exports	do.	622	590	620
Total merchand. imp., c.i.f.	do.	29,232	28,180	31,000
Total ag. imports	do.	3,473	2,841	3,000
Bal. of total trade I/	do.	-1,036	-30	200
Bal. of ag. trade	do.	-2,851	-2,251	-2,380
Bal. with the U.S.	do.	+3,604	+3,887	NA
Bal. of ag. trade/w the U.S.	do.	-1,809	-1,326	NA
Share of tot. exp. to U.S.	Percent	36	36	NA
Share of ag. exp. to U.S.	do.	10	11	NA
Share of tot. imp. from U.S.	do.	22	22	NA
Share of ag. imports from U.S.	do.	54	49	NA
<b>Other Indicators:</b>				
Exchange rate	Won/U.S.\$	806.00	870.02	900.00
CPI	1980=100	137.6	141.0	144.5
Growth in CPI	Percent	2.3	2.5	2.5
Population	Million	40.6	41.2	41.8
Population growth rate	Percent	1.58	1.48	1.46
Per capita GNP	U.S. \$	1,999	1,978	2,167

Note: (e) estimated 1985 values. (p) projected 1986 values.

I/ Total merchandise exports, f.o.b., minus total merchandise imports, f.o.b.

SOURCES: IMF International Financial Statistics; Wharton Econometrics, World Economic Outlook, December 1985; Economic Planning Board, Republic of Korea; Bank of Korea, Monthly Statistical Bulletin, December 1985; Korea Development Institute, Quarterly Economic Outlook, Fall 1985; U.N. trade data; Foreign Agricultural Service, USDA, Annual Situation Report for South Korea; ERS estimates.

the dollar and other major currencies, coupled with a modest depreciation of the Korean won against the dollar, has substantially improved the competitiveness of Korean exports. Partly as a result, merchandise exports to the United States in January–February 1986 were running 35 percent above the corresponding period in 1985. In addition, the successful introduction of Korean automobiles and video recorders into the U.S. market in 1985 appears to place Korea in a good position to compete with Japan. The United States absorbs more than 35 percent of Korea's merchandise exports, so performance in the U.S. market is vital to overall export growth.

Finally, the sharp drop in world oil prices since early 1986 could help reduce Korea's import bill if OPEC fails to regain effective control of the market; however, some of the

resulting gains are likely to be offset by a further decline in demand for Korean construction services in the Middle East.

### *South Korea Experiences Rice Stock Problems*

South Korea's 1985 rice harvest of 5.62 million tons was 3 percent above the official production target, but was 1 percent below last year's output. Heavy rains during the harvest season led to serious quality problems with much of the crop. South Korea, traditionally a rice-deficit country, has long promoted increased production through generous support prices and heavy investment in irrigation development. Farmers have responded by devoting most arable land to rice production and by increasing use of fertilizer and other inputs to raise yields. Meanwhile, the Government has released rice from official stocks at prices far below the purchase price to hold down consumer prices, incurring a heavy deficit on its rice support account. Despite this subsidy, rising real incomes have prompted consumers to eat less rice and more animal products, vegetables, and fruit. As a result, rice production has exceeded demand since 1984, leading to a buildup in Government stocks in excess of the amount targeted for food security purposes and doubling the annual cost of the rice subsidy program to nearly \$900 million in 1984–85.

More seriously, the quality of the rice held in Government stocks has increasingly fallen short of that desired by consumers. The Government formerly purchased only high-yielding variety rice so as to stimulate its production. However, consumers have shown an increasingly strong preference for traditional varieties despite their higher price. As a result, rice held in Government hands has been hard to market. The Government began offering to purchase traditional rice from the 1984 crop, but so far the price premium offered over high-yielding varieties (3 percent in 1985) has been too small to compete with demand on the open market. Therefore, the 1.1 million tons purchased by the Government consisted almost exclusively of high-yielding varieties, and as much as two-thirds of this appears to suffer from serious quality problems.

In an effort to reduce excess stocks while holding down the price of traditional varieties,

the Government began in early 1986 to cut its release price for high-yielding rice. It is too early to assess the impact of this policy change; if it fails, more vigorous means may be needed to reverse the buildup of official rice stocks, possibly including payments for diverting riceland to other crops. Such an approach would reverse a decades-long effort to promote rice production, and would do little to reduce the growing financial burden of the rice support program. Rice exports would require very heavy budgetary subsidies which would create political problems at home and abroad; they are therefore considered a last resort to the surplus problem.

### *Coarse Grain Production Drops Sharply*

Food barley production fell to a record low of 571,000 tons, down 29 percent from 1984 because of a one-third drop in area. Demand for food barley, the third most important food grain, has declined steadily in recent years as rising real income has allowed consumers to shift to rice and livestock products. As a result, the Government has been forced to purchase more than 60 percent of the crop to support farm-gate prices at roughly 4 times world levels. In contrast, demand for malting barley from breweries has grown rapidly in recent years; production rose 40 percent in 1985 to 184,000 tons. Production of corn, the only other significant coarse grain, increased marginally to 135,000 tons.

### *Fruit Output Increased; Vegetables Declined in 1985*

Vegetable production declined 2 percent in 1985. Reduced demand for Chinese cabbage and radishes, and other vegetables, prompted reduced planting. This is likely to prove a temporary setback to the recent rapid growth in demand for vegetables, which has stimulated increased planting under vinyl greenhouses to withstand Korea's harsh winter weather.

The 1985 fruit crop increased 20 percent, led by record production of tangerines. Although the resulting glut sharply depressed tangerine prices, improved export demand for apples and pears raised prices for these fruits. Domestic fruit and vegetable producers are strongly protected from import competition through tariffs, restrictive import license requirements, and stringent phytosanitary barriers.

### Agricultural production in South Korea

Commodity	1983	1984	1985	1985/84
	1,000 tons			Percent
Rice	5,404	5,682	5,626	99
Vegetables	8,291	8,462	8,298	98
Beef and veal	90	122	162	133
Pork	295	339	347	102
Eggs	271	280	289	103
Milk	712	840	966	115
Chicken meat	120	121	128	106
Apples	586	528	533	101
Barley	816	804	571	71
Indices of production	1976-78 = 100			
Crops	103	105	103	98
Livestock	159	181	201	111
Total				
agriculture	109	112	113	101
Per capita				
agriculture	99	101	100	99

NOTE: Commodities shown are in order of importance in 1985 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1975-84 and Foreign Agricultural Service, USDA, Annual Situation Report for South Korea.

### *Feed Sector Plan for 1986*

Korea's official 1986 feed sector plan is riddled with contradictions. This plan is designed to serve as the Government's guideline on feed grain production, feed ingredients, and control of feedstuff imports. However, the 1986 plan has not taken into account low commodity prices and Thailand is selling very high-quality low-priced corn. Feed millers have already pressured the Government into raising the share of corn in mixed feed from 60 to 66 percent. Corn quotas under the plan are expected to be exhausted by mid-September.

Thailand is likely to increase its share of South Korea's coarse grain market with estimated corn sales of 1 million tons in fiscal 1986. Prospects for U.S. corn have improved since early 1986, with export sales through March running well ahead of last year's pace.

The Government's 1986 commercial feed production target of 6.2 million tons is 250,000



lower than 1985 output. The scant increases targeted for swine and poultry rations do not seem to take into account a likely 10-percent expansion in the livestock sector.

All feed ingredients are under Government supervision. Imports of corn, soybeans, and soybean meal are constrained by quota; tapioca is subject to a tariff quota, and milk replacer and animal protein meal imports are restricted. In spite of quota limitations, the Government, in some instances, relaxes restrictions to accommodate increasing demand. Since the 1986 feed plan quotas were set below expected demand, feed grain import quotas may be increased later in the year.

During 1984 and 1985 feed wheat from Australia and Canada was substituted for corn as a feed ingredient. Some further substitution is expected in 1986. South Korea's increased purchases from other coarse grain suppliers contributed to the erosion in the U.S. import share for corn from 97 percent in 1983 to 49 percent in 1985.

### *Swine Industry Expands*

In spite of Government efforts to control cyclical swings, the hog inventory, which bottomed out in July 1985, is forecast to expand through 1986. The swine sector has experienced cycles of inventory growth during periods of high prices, followed by oversupply, falling prices and increased slaughterings. Hog prices, prompted by smaller inventories, increased 28 percent in 1985 from 1984, and peaked in December. Declining producer prices since the beginning of 1986 increases the likelihood of industry contraction later this year.

The swine sector is experiencing a change as smaller producers, usually with less than 50 head, are giving up breeding. The Government is encouraging this shift, as it tries to rely on larger farm operators to control the cyclical nature of the industry. A swine registration program to keep track of swine inventories of herds larger than 2,000 head started in 1985. An integrated swine production program in 1986 is expected to help control erratic price movements as small producers work with larger ones and the National Agricultural Cooperative Federation (NACF) in controlling inventories and slaughter prices.

### *Beef Sector Recovers From Slump*

Beef production increased 33 percent in 1985 from 1984. Cattle inventories, exceeding 3 million head last June, fell to 2.9 million head as of March 1986, with the Government setting a goal for further reduction to 2.7 million by the end of the year. Average steer prices fell 23 percent from 1984, and calf prices were down one-third from 1983. Retail prices of beef in Seoul fell a drastic 25 percent in 1985 leading to a 15-percent increase in consumption. Since the beginning of 1986 Government efforts have resulted in a 17-percent increase in slaughter steer (400kg) prices to approximately \$1.40/lb., a little short of the \$1.50/lb. target.

New measures adopted in 1985 included suspension of dairy cattle imports and beef imports for general and hotel use, allowing beef to move freely from the provinces to Seoul, a beef cut identity system, relaxation of slaughter restrictions, and controls on the release of imported beef stocks. Additional measures for 1986 are the purchase of approximately 3,500 heifers each week from December 20, 1985 through June 30, 1986;

Farm and consumer food prices  
in South Korea

Commodity	1983	1984	1985	1985/ 1984
	Won/Kilogram			Percent
Farm prices				
Rice	782	778	810	104
Wheat	336	290	264	91
Barley	430	444	445	100
Swine, live wt.	1,362	1,138	1,451	128
Milk	313	313	320	102
Broilers	1,642	1,763	961	55
Beef cattle, live wt.	3,761	3,577	2,759	77
Tobacco	2,170	2,170	2,152	99
Cabbage	117	139	65	47
1980 = 100				
Consumer price indices				
Food	132	134	139	104
Meats	160	161	160	99
Fish	143	139	149	107
Fruits	108	107	123	115
Vegetables	114	128	115	90

SOURCES: Korean National Agricultural Cooperative Federation, *Monthly Review*, December 1985; and ERS estimates.

expansion of production and marketing of packaged beef; relaxation of the farm slaughter tax until April 1986; and efforts to export cattle to Japan.

An expanding dairy herd, encouraged by high government price supports, led to a 15 percent rise in milk production in 1985. As production exceeded consumption, efforts were made to expand consumption. Development of new dairy products, increased use of milk in school lunch programs, and an export sale of 2,000 metric tons of powdered milk to the Netherlands were some of the measures taken to alleviate the surplus. The export sale was subsidized from the Government's Livestock Promotion Fund.

### *Farm Imports Decline in Value*

The total value of South Korea's 1985 agricultural imports declined approximately 18 percent because of lower commodity prices. The volume of most major agricultural imports increased or remained stable. Cotton imports were approximately the same in 1985, but the U.S. share eroded toward the end of the year. Soybeans, cattle hides, and coarse grain imports increased, while tallow, soybean meal, and beef volumes declined.

South Korea's imports of principal agricultural commodities and the U.S. share

Commodity	Volume		U.S. share	
	1984	1985	1984	1985
	1,000 tons		Percent	
Corn	3,070	3,406	83	49
Sorghum	326	344	42	13
Soybeans	722	868	100	90
Soybean meal	135	120	32	0
Raw cotton	353	361	79	73
Beef	28	3	4	33
Whole cattle hide	156	179	88	93
Tallow	178	115	55	69
Wheat	2,645	2,986	72	66
Million dollars				
Total agricultural imports	3,473	2,841	54	49

SOURCE: Republic of Korea, Office of Customs Administration, *Monthly Foreign Trade Statistics*. December, 1985.

### *U.S. Agricultural Exports to Fall 10 Percent*

The value for U.S. agricultural exports to South Korea is expected to fall 10 percent in 1986. The U.S. share of South Korea's agricultural imports, which fell below 50 percent for the first time in more than 20 years, is expected to recover somewhat toward the end of 1986 when U.S. cotton prices come more into line with world prices.

U.S. agricultural exports to South Korea

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animal & animal prods.	332	321	299
Beef	7	8	1
Tallow, inedible	46	34	21
Cattle hds; whole	247	247	242
Grains & feeds	777	471	476
Wheat & products	300	276	239
Rice	0	0	0
Feed grains	470	190	237
Feeds & fodder	5	1	1
Fruits & preparations	4	5	10
Nuts & preparations	1	1	2
Vegetables & preparations	5	7	2
Oilseeds & products	238	172	168
Oilcake & meal	15	0	8
Soybeans	215	166	157
Veg. oils & waxes	5	5	3
Cotton, excl. linters	443	404	277
Other	16	19	28
TOTAL	1,816	1,400	1,262
1,000 tons			
Tallow, inedible	97	74	76
Cattle hds; whole (1,000 no.)	5,654	5,953	6,500
Wheat & products	1,985	1,901	1,920
Rice	0	0	0
Feed grains	3,087	1,521	2,250
Oilcake & meal	60	0	40
Soybeans	707	714	850
Veg. oil & waxes	5	4	4
Cotton, excl. linters	272	272	200

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.



The U.S. share of South Korea's coarse grain imports is forecast to recover in 1986 from the low 41 percent in 1984/85 because of less competition from PRC corn. The decline in PRC imports will more than offset increases from Thailand, Australia, and Canada. Imports of Canadian and Australian feed wheat for the 1986 marketing year ending in June are estimated at 700,000 tons, 36 percent below imports for the same period in 1985. Imports of non-grain feed ingredients, such as tapioca, are expected to increase in 1986.

The outlook for U.S. cotton sales to South Korea looks poor for 1986, since U.S. prices are well above other suppliers, and will remain so until new U.S. farm policy takes effect in August. Milling wheat imports from the United States for 1986 are expected to remain the same as 1985. Australian and Argentine sales of milling wheat may threaten the position of the United States as sole supplier.

U.S. soybean sales to Korea are expected to rise, because of increased livestock feeding. After purchasing all its soybeans from the United States in 1982-84, South Korea bought 97,000 tons (or 11 percent of total imports) from Brazil in 1985. South Korea purchased 40,000 tons of expensive U.S. soymeal at the end of 1985 because of delivery problems with China. Increased purchases of U.S. soymeal are not expected during 1986.

Beef imports for general consumption are expected to remain banned, and no U.S. imports for hotel and restaurant use are expected for 1986. Dairy and beef cattle imports will remain restricted this year as the beef industry continues to recover from low prices in 1985. [*Maria-Elena Pomar (202) 786-1611*]

## TAIWAN

Despite slower economic growth, Taiwan's agricultural imports accelerated in 1985. While the volume of U.S. agricultural exports to Taiwan increased 8 percent in fiscal 1985, the value decreased 5 percent to \$1.34 billion because of lower prices. Taiwan retained its rank as the seventh most important U.S. overseas farm market. Fiscal 1986 U.S. agricultural exports to Taiwan are forecast to further decrease to \$1.13 billion,

because of even lower prices and keener competition for most bulk commodities.

Taiwan's overall agricultural production increased 1 percent in 1985. Crop production decreased marginally, but livestock production increased 5.2 percent. The hog inventory expanded to a record 6.7 million head with slaughter numbers up 12 percent and pork exports, mainly to Japan, hitting a record 67,046 tons. Poultry production fell 1.5 percent.

Despite increased feed demand, coarse grain imports in 1985 decreased slightly. The decrease was mainly due to the Government-mandated rice-for-feed program and increased feed use of tapioca pellets from Thailand. Soybean imports increased 9 percent. Livestock production is expected to remain the same or decline slightly in 1986. Soybean imports are expected to increase 2 percent in 1986, while import demand for coarse grain is expected to remain steady.

Taiwan's textile industry faced problems in 1985. It was not until the last quarter of the year that textile exports began to turn around. Cotton imports, however, increased 9 percent, mainly because of the industry's taking advantage of low cotton prices for building stocks. Relatively high U.S. prices caused the U.S. market share to drop from 42 to 35 percent in 1985. A weakened Taiwan dollar, increased textile export orders, and higher cotton ratios used in blended textiles will keep cotton imports at a relatively high level in 1986. The market share of U.S. cotton will likely improve when prices become more competitive for the 1986/87 crop under new farm bill provisions.

Taiwan's 1985 farm policy centered on the reduction of rice area and the disposal of surpluses built up since the early seventies. The second year of the 6-year diversion program (1984-89) led to the shifting of 96,000 hectares to other crops, mainly fruits and vegetables. Rice planted area and production decreased by 3.9 and 3.1 percent, respectively. During June 1984-May 1985, the rice-for-feed program diverted about 300,000 tons of rice for feed use, and another 400,000 tons will be diverted to feed between June 1985 and August 1986.

## Economy Slows in 1985, Prospects Better for 1986

Following record-breaking exports and high rates of growth in 1984, Taiwan's economy faltered in 1985. The growth rate dropped from 10.3 percent in 1984 to 4.1 percent in 1985. The average consumer price index fell 0.2 percent in 1985.

Confidence in Taiwan's financial system was badly shaken by a bank industry scandal in February 1985 involving large illegal loans and check fraud. Two cabinet ministers were forced to resign. Afterwards, banks were more conservative in their lending policy. Gross fixed capital formation as a share of GNP dropped from 21.3 percent in 1984 to 19.1 percent in 1985. Private consumption increased slightly, its share of GNP rising from 50.3 to 51.2 percent. To stimulate the economy, the Government expanded its spending from 16.0 to 16.6 percent of GNP.

Foreign trade has a significant role in Taiwan's economy making it dependent on developments in overseas economies. Exports increased only .7 percent, but imports decreased 8.6 percent in 1985 leaving a large trade surplus of \$11.7 billion, up 27 percent from 1984. Despite efforts to diversify exports and improve the trade balance with the United States, Taiwan's surplus with the United States surpassed \$10 billion in 1985. Given protectionist sentiment in the United States and sensitivity about its surplus, Taiwan agreed in October 1985 to lower tariffs on 192 items of particular interest to the United States and substantially ease existing restrictions on U.S. imports of cigarettes, beer, and wine.

Economic growth during the first quarter of 1986 was so strong that the Government upped its 1986 growth rate forecast from 5.5 to 8.5 percent. The Government expects inflation will accelerate from last year (2.5 percent compared to -.2 percent). Lower oil prices will help offset the impact of a value-added tax implemented on April 1, 1986.

## Macroeconomic indicators: Taiwan

Item	Units	1984	1985(e)	1986(f)
<u>National Accounts:</u>				
Gross national prod.	Bil. NT\$	2,277.8	2,394.8	2,589.7
GNP in 1980 prices	do.	1,911.4	2,001.9	2,112.0
Growth in real GNP	Percent	10.5	4.7	5.5
Share of GNP				
Exports	Percent	57.0	54.5	53.8
Gov'tt cons.	do.	16.0	16.6	16.3
Gross fix cap. form	do.	21.3	19.1	19.8
Priv. cons.	do.	50.3	51.2	51.9
<u>Int'l Transact:</u>				
Total exports, f.o.b.	Mil. U.S.\$	30,456	30,717	32,420
Total ag. exports	do.	1,323	1,228	1,296
Total imports, c.i.f.	do.	21,959	20,107	21,850
Total ag. imports	do.	2,984	2,720	2,956
Bal. of total trade I/	do.	8,497	10,610	10,570
Bal. of ag. trade I/	do.	-1,661	-1,492	-1,660
Bal./the U.S. I/	do.	9,826	10,024	10,050
Bal. of ag. trade I/	do.	-1,373	-1,271	-1,373
Share of total to U.S.	Percent	49	48	49
Ag. commod.	do.	17	15	15
Share from U.S.	do.	23	24	24
Ag. commod.	do.	53	53	53
<u>Other Indicators:</u>				
Exchange rate	NT\$/US\$	39.6	39.8	39.5
CPI	1980=100	121.4	121.2	124.2
Growth in CPI	Percent	-0.03	-0.16	2.50
Population	Million	19.01	19.26	19.53
Pop. growth rate	Percent	1.5	1.3	1.4
Per capita GNP	U.S. dollars	3,046	3,142	3,360

(e) estimated (f) Government targets.

I/ Difference between exports on f.o.b. basis and imports on c.i.f. basis.

SOURCES: The Central Bank of China, *Financial Statistics, Taiwan District, The Republic of China, December 1985*; Foreign Agricultural Service, USDA, *Annual Situation Report for Taiwan*, February 1986; and ERS estimates.

Since the new Taiwan dollar is loosely pegged to the U.S. dollar, Taiwan's exports have become progressively more competitive in Europe and Japan since the G-5 meeting in September 1985. The value of trade in January-March 1986 exceeded that for the same months last year; exports and imports increased 18.3 and 7.5 percent, respectively. During these 3 months, Taiwan continued to depend heavily on the U.S. market with 48 percent of its exports going to and 23.4 percent of its imports coming from the United States. Steps to gradually liberalize and internationalize the island's trade have also been taken. Among them were lowered customs tariffs on 934 categories of trade, phasing out of the 5-percent import tariff surcharge, and changes in the way tariffs are calculated (beginning in mid-1986 tariffs will be based on actual transaction values instead of c.i.f. values).



## Rice Production Decreases, But Surplus Problem Persists

In 1985, the second year of the 6-year Riceland Diversion Program (1984-89), over 96,000 hectares of riceland (54 percent more than targeted) were converted to other crops or left idle. The rice-planted area decreased 3.9 percent to 564,393 hectares, and production decreased 3.1 percent to 2.02 million tons (milled basis). Production, however, still exceeded domestic food needs by over 200,000 tons. Rice stocks did decline somewhat as 299,119 tons of old rice were diverted for feed use during June 1984-May 1985. An additional 400,000 tons will be sold to feed compounders at subsidized prices between June 1985 and August 1986, and an allocation of 235,000 tons is planned for September 1986-March 1987.

The Government's increased emphasis on the rice-for-feed program as a way of disposing of its surplus results from the lack of export markets. Exports in 1985 were only 39,000 tons, down 81 percent from 1984, mainly because of a general decline in international rice trade.

### Other Crop Production Varies

Although the riceland diverted to coarse grain production in 1985 achieved only 72 percent of the Government's target of 22,030 hectares, the effect was substantial. Corn production increased 18 percent to 224,000 tons, sorghum increased 178 percent to 90,000 tons, and soybeans increased 37 percent to 13,000 tons. The area shifted to horticultural products exceeded the Government's 18,675-hectare target by 140 percent and was the most popular alternative use for riceland under the program. Vegetable production decreased 5 percent because of bad weather. Citrus fruit production, on the other hand, increased 16 percent. Total crop production in 1985 decreased marginally from 1984.

Sugarcane production increased 4 percent from 1984 because of good weather during the growing season. A larger sugarcane harvest and substantial sugar stocks increased exports by 32 percent to 170,660 tons in 1985, despite low world prices. In 1984/85, the Government-owned Taiwan Sugar Corporation lost about \$42.6 million, which was covered by the Sugar Stabilization Fund. The fund has

## Agricultural production in Taiwan

Commodity	1983	1984	1985	1985/84
	1,000 tons		Percent	
Pork	656	732	820	112
Rice	2,311	2,087	2,021	97
Poultry meat	352	351	344	98
Vegetables	3,019	3,416	3,258	95
Eggs	210	221	226	102
Sugarcane	7,070	6,545	6,808	104
Citrus fruit	379	354	412	116
Tea	24	24	23	96
Indices of production	1976-78 = 100			
Crops	100	102	102	100
Livestock	155	164	172	105
Total agriculture	108	110	111	101
Per capita agriculture	96	97	97	100

NOTE: Commodities shown are in order of importance in 1985 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1975-84; Foreign Agricultural Service, USDA, Annual Situation Report for Taiwan, February 1986; and Taiwan Council of Agriculture, Agricultural Situation Weekly, No. 65, March 8, 1986.

been depleted; an estimated \$37.6 million is needed to provide production loans for farmers and to purchase sugar produced for the 1985/86 marketing year.

### Record Hog Production and Exports Again

Despite continued low hog prices and the Government's frequent warnings of over-production, slaughter numbers jumped 12 percent from 1984 to a record 10.4 million head. Encouraged by high profits in 1983, a relatively stable hog/feed price ratio in 1984 and subsequent success in export marketings, hog production expanded substantially in 1984. In addition to the huge herd size carried into 1985, stimulated by another year of successful pork exports and low feed prices, swine growers continued to expand operations throughout 1985. Potentially serious oversupply, however, was avoided by increased exports, which jumped 31 percent in 1985 to a record 67,046 tons, mostly to Japan. The increase in exports was mainly attributed to competitive Taiwanese prices and the sharp appreciation of the yen after September 1985.

# Farm and consumer food prices in Taiwan

Commodity	1983	1984	1985	1985/ 1984
	NT\$/Kilogram			Percent
Farm prices				
Rice, ponlai	14	15	14	93
Peanuts, with husk	35	42	39	94
Eggs, hen	34	38	34	89
Swine	59	49	40	82
Broilers	48	47	42	89
Beef cattle (NT\$ 1,000 head)	37	38	40	105
Policy prices				
Rice, ponlai	18.8	18.8	18.8	100
Sugar	21	21	21	100
1980 = 100				
Consumer price indices				
Food	124	121	119	98
Meats	121	112	94	84
Fish	128	123	124	101
Fruits	158	144	159	110
Vegetables	155	132	144	109

SOURCES: Provincial Government of Taiwan, Department of Agriculture & Forestry, Taiwan Agricultural Prices Monthly, December 1985; Republic of China, Council for Economic Planning and Development, Industry of Free China, January 1986; and ERS estimates.

Despite large exports, declining prices made hog production unprofitable in 1985. The Government ordered a temporary halt to domestic sales by large hog farms (over 5,000 head), effective May through June 1985. Afterwards, the Government limited domestic marketing of pork produced by the largest hog farm--Taiwan Sugar Corporation--to only 5,000 head per month and required other large hog farms to export at least 60 percent of their production. Other measures to reverse declining prices included encouraging exports of live piglets and reducing the slaughter tax, assessed at \$13.5 per head regardless of size. Also, slaughter tax rebates are given when pork is exported.

## Other Meat Production Mixed

Chicken production increased 0.6 percent, but 1985 production of other poultry meats, mainly duck, decreased. Overall poultry production dropped 2 percent, while egg

production increased 2 percent. The authorities and the Taiwan Poultry Association are encouraging farmers to cut back production by 5 percent in 1986.

Taiwan's cattle industry remained small in 1985; self-sufficiency for beef and milk was about 15 and 10 percent respectively. The Government decided to change its policy in 1985 by equally emphasizing both the beef and dairy industries instead of its previous "dairy only" policy. So far, the most ambitious action taken by the Taiwan Sugar Corporation was the purchase of 722 head of beef breeding stock in 1985 from the United States. The corporation plans to purchase 5,760 more by 1988.

## Coarse Grain Imports Decline Slightly; Soybean Imports Increase

Although coarse grain imports increased sharply in the first quarter of 1985, yearly imports declined 0.5 percent from 1984. The mandated rice-for-feed program and increased feed use of tapioca pellets from Thailand were partly responsible. In late 1984, the Government began to enforce a long-standing regulation that importers of bulk commodities maintain stocks of at least 2 months' consumption to ensure stable supply. By May, large volumes of coarse grain were piling up and feed prices were declining. The Government lowered the required stock level from 2 months to 1-1/2 months in June and increased the special levy on imported bulk grains from \$6.10 to \$7.00 per ton in July. Since then, coarse grain imports have slowed.

Although under similar regulations as those governing coarse grain imports, soybean crushers took advantage of cheaper world prices to build up stocks in 1985. Soybean imports increased 9 percent from 1984 to 1.47 million tons. Increased hog and chicken production, the main users of soymeal, and overcapacity in Taiwan's crushing industry--about three times the import quota (1.4 million tons in 1985)--were the main stimulus. Soybean imports from the United States increased about 3.8 percent to nearly 1.4 million tons in 1985; however, the United States was no longer the sole supplier as it was in 1984. In 1985, Taiwan purchased 70,000 tons from Uruguay and Paraguay.



## Cotton Imports Increase, But U.S. Market Share Down

Beginning in the last quarter of 1984, the textile industry entered a period of serious difficulties. Mill consumption of raw cotton slowed because of significant reductions in export sales. Growing protectionist sentiment in major textile markets caused uncertainty in Taiwan's textile industry. Until a veto by President Reagan on December 17, 1985, the industry was under the shadow of the Textile and Apparel Trade Enforcement Bill (the Jenkins Bill) introduced in Congress in March 1985 in response to U.S. textile producers' requests for protection from increased imports. In addition, there was growing competition from cotton-producing countries such as Pakistan and, most recently, from the PRC in yarn and fabric markets. The implementation of a new labor standards law in August 1984 increased textile industry costs and could affect Taiwan's competitiveness in the intermediate term.

Despite the pessimistic mood in the textile industry during most of 1985, cotton imports increased 9 percent from 1984 to 288,000 tons. Increased export sales since the last quarter of 1985, higher cotton ratios in blended textiles, low cotton prices, and stock building have stimulated import demand. Recent weakening in the NT dollar has improved Taiwan's competitive position in overseas textile markets, notably the European market.

Major cotton suppliers to Taiwan in 1985 included the United States, Pakistan, Australia, Mexico, Argentina, and the Ivory Coast. Because of higher U.S. prices, the U.S. market share decreased from 42 percent in 1984 to 35 percent in 1985. Pakistan dramatically increased its share from 2 to 20 percent, while Australia increased its slightly from 9 to 10 percent. Although the PRC became a major supplier to Hong Kong and South Korea—Taiwan's main textile competitors—the Government maintained restrictions on imports from the PRC, despite repeated requests from cotton importers to lift them.

### Hides and Most Food Imports Increase

In response to strong export demand for Taiwan's leather products, imports of cattle

## Taiwan's imports of principal agricultural commodities and the U.S. share

Commodity	Volume		U.S. share	
	1984	1985	1984	1985
	1,000 tons		Percent	
Corn	2,960	3,017	99	99
Sorghum	597	564	39	32
Barley	382	337	57	38
Soybeans	1,345	1,470	100	95
Raw cotton	264	288	42	35
Wheat	669	755	77	89
Tobacco	12	16	82	84
Beef	24	27	7	5
Cattle hides	92	107	79	74
Powder milk 1/	66	63	7	6
Apples	46	50	70	68
	Million dollars			
Total agricultural imports	2,984	2,720	53	53

1/ Excludes powder milk for fodder use.

SOURCES: Republic of China, Inspectorate General of Customs, *The Trade of China*, December 1984 and 1985 issues.

hides increased 16 percent in 1985 with the United States and Canada supplying about 95 percent of the total. In 1985, because of higher prices, the market share for the United States decreased from 79 percent to 75 percent, while Canada increased from 17 percent to 21 percent.

### Prospects for 1986

Surplus rice will continue to be a problem for Taiwan's agricultural authorities. Although the riceland diversion program has been successful in reducing production, 1985 production still exceeded food needs by over 200,000 tons. Moreover, most diverted riceland was used for production of horticultural products and not coarse grain, as had been planned. To assure continued diversion of riceland, and mainly to coarse grain production, the Government is considering increasing rice payments from 1 to 1.5 tons per hectare for diversion of riceland to coarse grain production while decreasing in-kind compensation from 1.5 to 1 tons for diversion to horticultural production.

As for the future disposition of surplus rice, options are becoming more limited.

U.S. agricultural exports  
to Taiwan

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animal & animal prods.	148	145	144
Beef	6	6	5
Tallow, inedible	13	10	11
Cattle hds; whole	114	112	109
Other	15	17	19
Grains & feeds	579	587	478
Wheat & products	106	96	83
Feed grains	440	461	366
Feeds & fodder	32	29	28
Fruits & preparations	29	29	32
Nuts & preparations	4	5	5
Vegetables & preparations	8	8	8
Oilseeds & products	422	347	309
Soybeans	414	341	302
Veg. oils & waxes	7	5	5
Tobacco, unmanufactured	62	62	79
Cotton, excl. linters	143	147	60
Other	14	12	15
TOTAL	1,409	1,342	1,130
1,000 tons			
Beef	1	1	1
Tallow, inedible	28	23	28
Cattle hds; whole (1,000 no.)	2,669	2,775	2,800
Wheat & products	627	609	650
Feed grains	2,957	3,539	3,330
Soybeans	1,316	1,392	1,440
Veg. oil & waxes	5	3	3
Tobacco, unmanufactured	11	11	15
Cotton, excl. linters	104	110	46

SOURCE: Bureau of the Census, U.S. Department of Commerce; and ERS forecasts.

Generally unfavorable prospects in the world rice market and export limits set by an understanding with U.S. rice exporters in March 1984 are limiting the potential to increase exports. It is also becoming more and more difficult to increase allocations of surplus rice for livestock feeding because of strong opposition from the feed industry.

In the livestock sector, the Government plans to encourage contraction in both the hog

and chicken industries. Livestock production targets for 1986 are as follows: hog slaughter (9.6 million head compared to 10.4 million head in 1985), beef slaughter (25,500 head compared to 26,244 in 1985), chicken slaughter (154 million head compared to 156 million in 1985), and duck slaughter (38 million head compared to 31.2 million head in 1985). It appears that an 8-percent decrease for hog production in 1986 may be difficult to attain. According to the hog survey in November 1985, the hog inventory was 2 percent larger than it was a year earlier, although sow numbers decreased 4 percent.

Taiwan will continue to import large quantities of coarse grain and soybeans in 1986. The Government is gradually liberalizing purchasing regulations for bulk commodities. Beginning in 1986, members of appropriate trade associations will be able to import up to 20 percent above or below allocated import quota levels. The Board of Foreign Trade has approved 1986 quotas for coarse grain and soybeans as follows: corn (2.79 million tons), barley (400,000), sorghum (1 million), and soybeans (1.39 million). Since the crushing capacity of Taiwan's soybean mills is about 3 times the quota, new high-capacity mills are expected to take advantage of the 20-percent allowance to import more beans. Soybean imports in 1986 are expected to increase to 1.5 million tons. Corn imports in 1986 will be about the 1985 level. The 1986 import quota for wheat is set at 700,000 tons (7.3 percent less than the actual import level in 1985) but could be increased later in the year.

U.S. agricultural exports to Taiwan are forecast to drop about 16 percent to \$1.13 billion in fiscal 1986 from \$1.34 billion in fiscal 1985 because of lower prices and keener competition in most bulk commodity markets. U.S. wheat exports to Taiwan are forecast at 650,000 tons in fiscal 1986. U.S. coarse grain exports to Taiwan are forecast to decrease 6 percent to 3.33 million tons, reflecting in part Taiwan's promise to buy 200,000 tons of corn from South Africa. U.S. soybean exports to Taiwan are forecast to increase 3 percent to 1.44 million tons with minor competition from Uruguay.

A weakened Taiwan dollar, increased textile export orders, higher cotton ratios in blended textiles, and greater demand for



cotton yarn have improved prospects for cotton imports. Cotton imports in October–December 1985 increased 0.3 percent compared to the same period in 1984. Higher U.S. cotton prices, however, caused the U.S. market share to drop from 21 to 6 percent. Pakistan and Brazil made significant gains in market share. U.S. cotton exports to Taiwan in fiscal 1986 are forecast to drop sharply to 46,000 tons from 110,413 tons in FY85.

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## OCEANIA OVERVIEW

### *Economies Slow in 1985, Policies Affect Prospects for 1986*

Economic growth in Australia and New Zealand slowed in 1985 because of slower growth in major export markets and uncertainty surrounding important changes in both countries' economic policies. Prospects for 1986 point to a continued slowing in Australia and some pick-up in New Zealand from 1985's very slow rate.

Australia and New Zealand have two important concerns. One is to keep inflation under control in order to prevent deterioration in their current accounts, which could have longer-term implications for export competitiveness. The other is to encourage the multilateral reduction and/or elimination of trade-distorting behavior by export competitors.

Inflation continues to be a problem in both countries and has contributed to recent reforms to reduce the effects of wage–cost inflation and other rigidities affecting economic performance. Australia's recent improved economic performance is attributed in part to a wage and incomes accord reached in 1983 among labor, industry, and Government in which wages were indexed to inflation. A more recent pact calls for indexation of wages to inflation during the first 6 months of 1986 in exchange for some reduction in wage rates next April. This will be offset in part by an income–tax cut planned for September 1986 and a productivity adjustment in pensions starting in July 1986.

New Zealand's economic reforms are broader and are being implemented rapidly. In

addition to dismantling wage and price controls, the New Zealand Government has undertaken to deregulate interest rates, to allow its currency to float freely, and to remove trade barriers. Trade barriers imposed by both countries to protect inefficient manufacturing have been perceived for some time as having inflationary consequences for agriculture by increasing labor, capital, and other input costs above what they would be otherwise. Rising rapidly in 1985 following the removal of controls, New Zealand's inflation rate is expected to return to the 4–6 percent level by the end of the decade. It is hoped that the economy's increased flexibility will allow it to adjust and respond more quickly and efficiently to opportunities in overseas markets.

The more market-oriented approach of Australia and New Zealand has been accompanied by louder calls for reduction and elimination of distortions in the world trading system. U.S. and EEC farm and trade policies have come under increasing criticism from these countries. The 1985 U.S. farm bill's commodity program and export provisions (Export Enhancement Program and subsidized beef exports under the whole-herd dairy buy-out scheme) as well as the Common Agricultural Policy (CAP) of the EEC are viewed as having negative effects on the ability of Australia and New Zealand to compete in world commodity markets.

### *Agricultural Output Up Slightly*

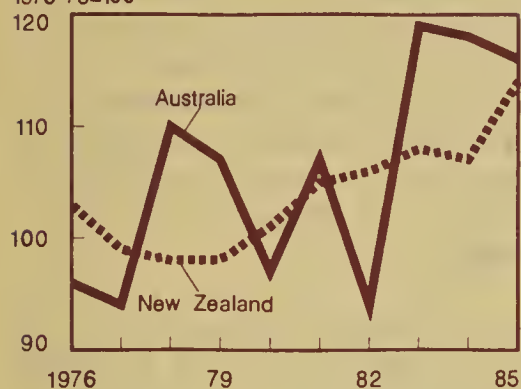
Total Oceanian agricultural output showed only a slight increase in 1985 as crop declines were offset by livestock advances. Total production has been roughly constant for the past 3 years, but still well above the drought-reduced levels in 1980 and 1982. New Zealand's outturn, more heavily dependent on livestock products, increased 7 percent, helped by big increases in sheepmeat and beef production. While Australian crop production declined in 1985 because of smaller wheat, sorghum, and sugar crops, livestock production, as in New Zealand, was up because of increased slaughter of sheep and cattle and higher milk output.

World market conditions as well as changes in policy have affected production prospects in both countries. In Australia

# Oceania Agricultural Indicators

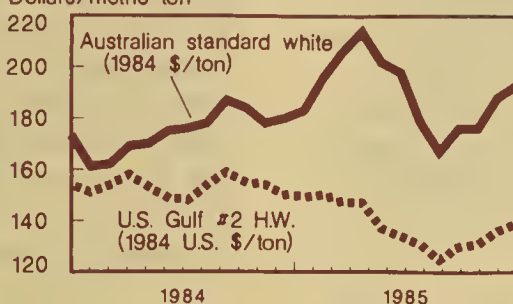
## Agricultural Production in Oceania<sup>1,2</sup>

1976-78=100



## Deflated Wheat Export Prices<sup>2,3</sup>

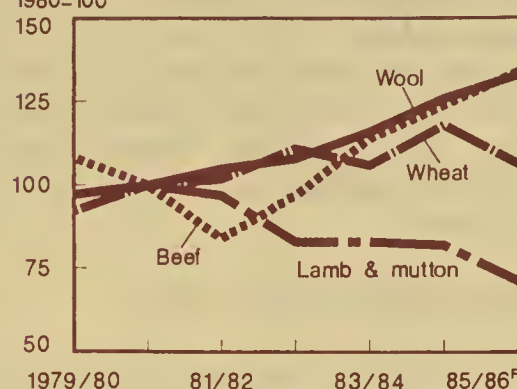
Dollars/metric ton



U.S. wheat price deflated using wholesale price index; Australian price deflated using manufactured goods price index.

## Prices Received by Farmers: Australia<sup>4</sup>

1980=100



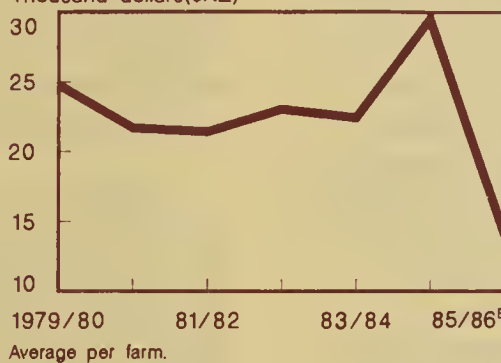
## Farm Income: Australia<sup>4</sup>

Billion dollars(\$A)



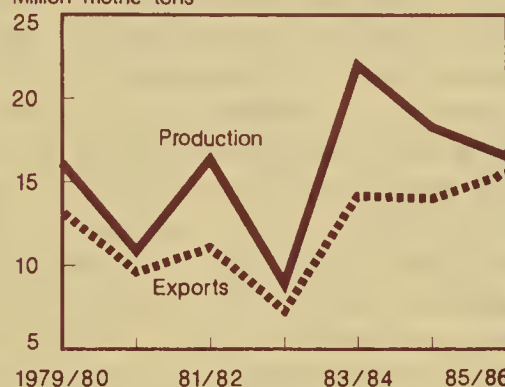
## Beef and Sheep Farm Income: New Zealand<sup>5</sup>

Thousand dollars(\$NZ)



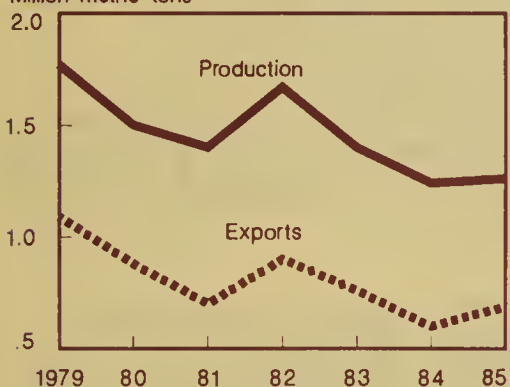
## Wheat: Australia<sup>2,4</sup>

Million metric tons



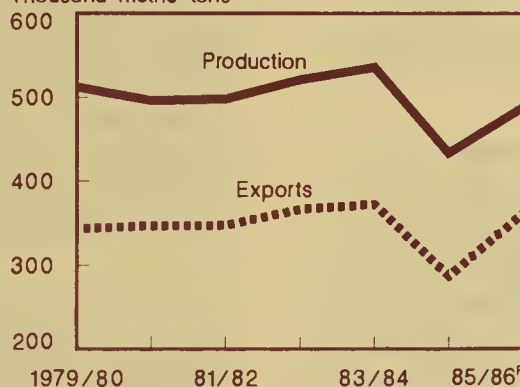
## Beef and Veal: Australia<sup>2</sup>

Million metric tons



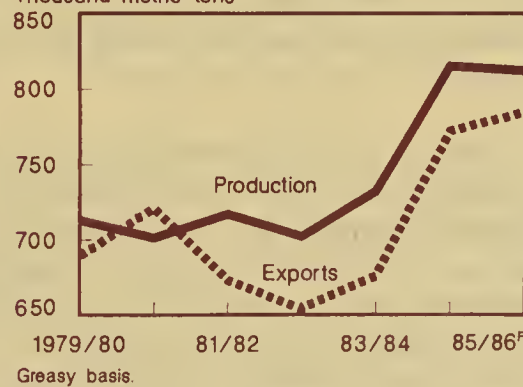
## Beef and Veal: New Zealand<sup>2</sup>

Thousand metric tons



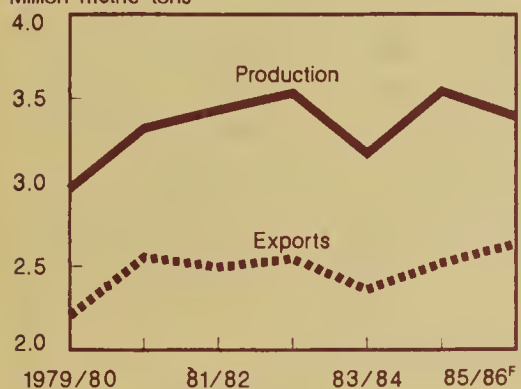
## Wool: Australia<sup>4</sup>

Thousand metric tons



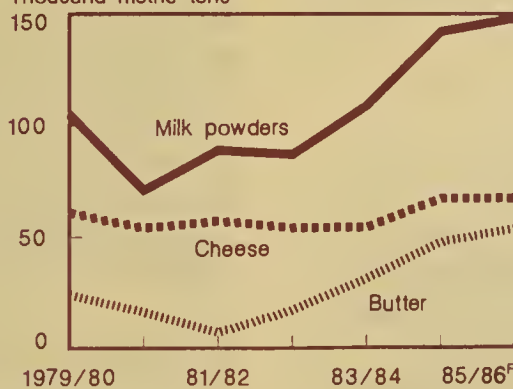
## Raw Sugar: Australia<sup>4</sup>

Million metric tons



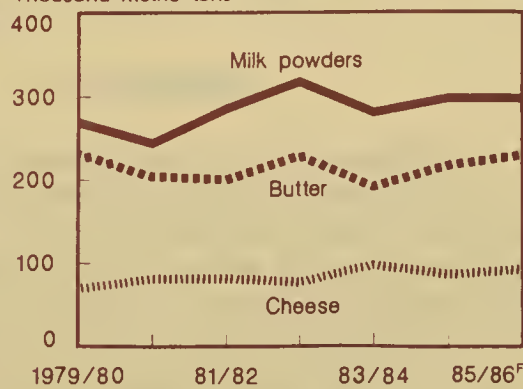
## Dairy Product Exports: Australia<sup>4</sup>

Thousand metric tons



## Dairy Product Exports: New Zealand<sup>6</sup>

Thousand metric tons



1/ ERS, USDA, World Indices of Agricultural Production, and ERS, USDA estimates.

2/ Foreign Agricultural Service, USDA.

3/ International Finance Statistics, International Monetary Fund.

4/ Quarterly Review of the Rural Economy, Australian Bureau of Agricultural Economics.

5/ The Agricultural Economist, Economics Division, New Zealand Ministry of Agriculture and Fisheries.

6/ Monthly Abstract of Statistics, New Zealand Department of Statistics, and ERS, USDA estimates.



resources will continue to shift from crops to livestock, particularly favoring wool and beef production. New Zealand's elimination of price supports for pastoral agriculture has increased the risk in sheep and cattle farming and has thus encouraged more resources to move into row crops, horticulture, goats, and deer. Big gains were made in the production of wheat, barley, and horticultural products last year.

### *Trade Outlook Pessimistic*

Oceania's exports of major farm commodities were up in 1984/85, (split years for Australia and New Zealand refer to July–June year) with 22 percent and 7 percent volume gains for Australia and New Zealand, respectively. Volume gains in 1985/86 are expected to be much more modest and with prices for many commodities at low levels, farm income in both countries is expected to decline. The export outlook for 1986/87 is not very good. Although economic growth is expected to increase in some important overseas markets, commodity prices are expected to remain low. Large dairy stocks in the United States and the EEC, uncertainty about the disposition of EEC beef stocks, large U.S. and PRC cotton stocks, and EEC exports of wheat and other grain will continue to put downward pressure on prices.

There is also uncertainty about the impact of new U.S. farm legislation, the Gramm–Rudman–Hollings deficit reduction law, and recent currency realignment on the competitiveness of U.S. farm products. Market–determined loan rates and a weaker U.S. dollar should help put the United States in a better competitive position in world markets. [William T. Coyle (202) 786–1611]

## AUSTRALIA

Australian agriculture, heavily export-oriented, has been hard-hit by depressed world commodity prices. Farm income on family farms will average less than \$A7,000 (\$U.S. 5,000) in 1985/86, down from \$A19,500 (\$U.S. 15,100) the previous year. With less-than-ideal weather, crop yields are down this year, and, in some areas, pasture growth has been poor. The volume of agricultural production declined 3 percent in 1985.

Prices received by farmers for livestock products are improving in 1985/86, but crop prices are declining. The low value of the Australian dollar has helped to support prices but has also raised input costs. The index of prices received is expected to decline 2 percent in 1985/86; the index of prices paid rose 6 percent in 1984/85 and is expected to rise 9 percent this year. Interest rates and fertilizer, machinery, and chemical costs are increasing most rapidly.

Winter grain production (harvested in November–January 1986) fell a tenth as yields returned to near-average levels. Summer grain area (harvested in March–July 1986) is estimated near last year's record; oilseed and cotton area declined. After 2 years of decline, beef production rose 9 percent in 1985 while herd rebuilding continued. Sheepmeat production rebounded as herd expansion slowed.

Australian agriculture's major concerns are weak foreign markets and high on- and off-farm costs, especially labor costs. Subsidized exports by the United States and the European Community (EC) are seen as taking money from Australian farmers through reduced prices and loss of market share. The Australian government has protested vigorously against the EC's Common Agricultural Policy and the U.S. Export Enhancement Program (EEP) and has called for multilateral efforts under GATT to reduce agricultural trade barriers and end the "EC–U.S. skirmish."

Australians are concerned that the new U.S. farm legislation will hurt prospects for Australia's farmers. Already-low grain and cotton prices are expected to decline further under the combined influences of the lower loan rates and the EEP. Australian cattle producers worry that the U.S. whole-herd dairy buyout program will increase U.S. cow beef production, affecting Australian beef prices, and that the EEP for meat could disrupt beef trade. The extension of the U.S. sugar quota period is expected to have some negative effect on Australia's producers.

### *Economy Continues Expansion*

Over the past two years, the Australian Government's expansionary fiscal policy has created strong growth in the economy. Consumer spending has accelerated, and the

manufacturing sector is recovering. The number of people employed has been expanding since early 1983, and the unemployment rate fell below 8 percent late last year. The inflation rate picked up in 1985, largely because of indexed wage increases and the weak currency. Australia's inflation is among the highest in the developed countries.

With economic growth, imports rose rapidly, but Australia's exports, heavily weighted by minerals and agricultural products, have been weak. The resulting current account deficit and inflationary expectations caused a depreciation of the Australian dollar. By November 1985, the trade-weighted value of the dollar was at a record low. Against the U.S. currency, the Australian dollar fell from 84 U.S. cents in January 1985 to 67 cents in June before recovering to 71 cents by March 1986.

To support the currency, the Australian Government tightened monetary policy, raising interest rates sharply in November. In addition, the 1985/86 Federal budget reduces fiscal stimulus to the economy. Thus, analysts expect 1986 to be a transitional year. Continued vigorous consumer spending and improvement in private-sector investment are expected to lead the economic growth. If the U.S. dollar weakens further, the Australian dollar should appreciate, allowing further reduction in interest rates. Some improvement in the balance of payments is also expected.

Australia has a comprehensive wage-fixing system under which "award rate" wages, tied to the cost of living, are paid to most workers. In mid-1985, the Federal Government and the Australian Council of Trade Unions agreed that the semi-annual increase paid in April 1986 would not fully compensate workers for the inflationary effects of the currency depreciation. In return, income tax rates--and government spending--are to be lowered beginning September 1986. Productivity increases will be received in the form of improved retirement benefits. This agreement, known as "The Accord," has achieved a degree of labor peace for the economy and reduced the wage-induced element of inflation. However, wages continue to be inflationary, hurting both Australia's international competitiveness and

#### Macroeconomic Indicators: Australia

Item	Units	1984	1985(e)	1986(f)
<u>National Accounts:</u>				
Gross domestic prod.	Bill. \$A	207.5	230.9	255.2
GDP in 1980 prices	do.	140.1	146.6	151.0
Growth in real GDP	Percent	6.7	4.7	3.0
Share of GNP				
Exports	Percent	15.3	17.7	17.3
Gov't cons.	do.	16.5	16.4	16.3
Gross fix cap. form.	do.	20.7	21.2	20.5
Priv. cons.	do.	60.0	60.3	60.0
Total exports, f.o.b.	Mil. U.S.\$	22,655	22,054	23,950
Total ag. exports 1/		7,430	7,871	7,300
Total imports, f.o.b.	do.	23,869	23,081	25,300
Total ag. imports 1/	do.	1,053	1,106	NA
Trade balance	do.	-1,214	-1,027	-1,350
Ag. trade bal. 1/	do.	6,377	6,765	NA
U.S. imp. from Australia	do.	2,675	2,837	NA
U.S. exp. to Australia	do.	4,742	5,375	NA
Bal. w/the U.S.	do.	-2,067	-2,538	NA
<u>Int'l Transact:</u>				
Exchange rate	\$A/\$U.S.	1.137	1.427	1.400
CPI	1980=100	139.6	150.3	161.9
Growth in CPI	Percent	4.0	7.7	7.7
Population	Million	15.6	15.8	16.0
Pop. growth rate	Percent	1.2	1.4	1.4
Per capita GDP	U.S. dollars	11,699	10,241	11,393

NA = Not available.

1/ July-June years 1983/84=1984.

SOURCES: IMF, *International Financial Statistics*; Wharton, Project Link, March 1986; Bureau of the Census.

small firms in the agriculture and resources sector, which face declining prices for their output.

Federal Government spending is forecast to increase 1 percent in 1985/86 following a 6-percent rise last year. Significant changes in taxation policy are now being enacted. Higher corporate tax rates are being imposed, and rules on deducting fringe benefits have been tightened. Individual income tax rates will be reduced from extremely high levels. A capital gains tax is in force for property purchased after September 1985.

#### *Crop Production Declining in 1985/86*

Dry weather during Australia's fall and winter reduced potential yields for winter grains. In the eastern States, heavy spring rains damaged early crops but were beneficial for summer crops. However, some areas were dry through the summer. In Western Australia, dry weather continued through the 1985/86 season.

Total wheat area remained at 12.0 million hectares, but production is down a tenth



because of a 35-percent decline in the Western Australian crop. Rains at harvest damaged some of the wheat. As a result, output of prime hard and hard wheats will be only average, and a large volume of wheat was classed as General Purpose--inferior to Australian Standard White (ASW) but not fully downgraded to feed wheat. The Guaranteed Minimum Price for ASW wheat is \$A150 a ton, up \$A5 from 1984/85. Net pool returns are estimated at \$A166 for last year's crop and \$A155 this year. Thus, producers expect to receive additional payments.

Coarse grain production is estimated down 3 percent because of the decline in barley yields. Sorghum plantings rose only slightly because of dryness in some growing regions. Oilseed production is estimated down 6 percent in 1985/86 from last year's record harvest, mainly because sunflower plantings dropped 17 percent. Cotton area declined because farmers planted very little dryland cotton, which had fared poorly the previous season. With lower yields likely, output is

Agricultural production in Australia

Commodity	1983	1984	1985	1985/84
	1,000 tons		Percent	
Wheat	22,016	18,294	16,500	90
Wool	732	815	812	100
Coarse grains	8,312	9,099	8,242	91
Milk	5,678	6,087	6,205	102
Beef & veal	1,414	1,248	1,360	109
Sugar (94 nt)	3,170	3,547	3,395	96
Mutton & lamb	470	450	552	123
Vegetables	1,002	1,071	1,087	101
Poultry meat	301	297	340	114
Pork	247	257	253	98
Cotton	141	247	195	79
Grapes	815	895	915	102
Eggs	137	130	127	98
Indices of production	1976-78 = 100			
Crops	145	142	132	93
Livestock	96	98	102	104
Total agriculture	119	118	116	98
Per capita agriculture	109	108	104	96

NOTE: Commodities shown are in order of importance in 1985 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Australian Bureau of Statistics, Bureau of Agricultural Economics, and USDA.

estimated down a fifth. Sugar production was down slightly in 1985/86, and cyclone damage to growing areas destroyed some cane in fields, reducing the potential 1986/87 harvest.

### *Livestock Herds Are Expanding*

With adequate pasture and disappointing returns to grain production, Australia's cattle herd is expanding. March 1986 cattle numbers are estimated at 23.2 million head, 2 million above the post-drought low recorded in 1984. The herd could expand by 1 million head this year. Cattle slaughter rose 7 percent in 1985 from 1984's extremely low level. Beef and veal production also rose as slaughter weights remained unusually high. Production may drop back slightly in 1986 as herd expansion accelerates.

March 1986 sheep numbers are estimated at 154 million head, 21 million above the 1983 low. Wool prices are strong, and poor mutton prices have kept the slaughter rate down. However, with the larger herd, slaughter numbers rose in 1985 from the low levels of the previous 2 years. Mutton production was up 23 percent, and lamb production 11 percent. Lambings may be down in 1986 as producers emphasize wool rather than prime lamb production. Herd expansion should continue at a slower pace. Sheepmeat production may decline about 5 percent. Wool production rose 12 percent in 1984/85 because of the larger herd and above-average clip per animal. Production in 1985/86 is expected to remain about the same because a larger number of animals shorn will offset a smaller clip per head.

Milk production is expected to increase slightly in 1985/86 because of favorable weather early in the season. Australia's dairy program is being altered to discourage overproduction and raise unit returns, but production is unlikely to be affected before 1987.

### *Export Value Benefiting From Low Australian Dollar*

Australia's agricultural exports are expected to reach \$A10.6 billion in 1985/86, 4 percent above the previous year, because of improved prices for wool and beef. The export volume index is forecast to decline 1 percent,

following a 22-percent jump last year. Exports of grains and other vegetable products may decline 3 percent in volume and 7 percent in value. Exports of livestock products are expected to increase in both volume and value.

Wheat exports are estimated at 15.7 million tons in 1985/86, with the handling and transportation system a major constraint. Wheat stocks will decline this marketing year but remain above desirable levels. The Australian Wheat Board has made large sales to three of the world's major wheat buyers: China, 3.3 million tons (September 1985-July 1986 delivery); USSR, 2.55 million (first-half 1986); and Egypt, 2.0 million (calendar 1986). Exports to Southeast Asia are expected to remain near 900-950,000 tons in 1985/86, as in the previous 2 years. Exports to Japan may total near 1984/85's 1.2 million tons, above the level of the informal supply agreement. Shipments to South Korea may decline from 761,000 tons last marketing year because of reduced supplies of feed wheat.

Coarse grain exports are expected to decline from 6.3 million to about 4.5 million tons in 1985/86. The share going to East Asia may decrease because of strong demand in Saudi Arabia, the largest market.

Cotton exports are up sharply in 1985/86 because of last year's record crop. Sales have been strong to the East Asian markets, which take about 70 percent of total exports. In the past 2 years, sales to Yugoslavia and North Korea have compensated for the loss of sales to China.

Wool export volume may increase slightly in 1985/86, and prices are expected to average 6 percent above last year's record level. Shipments to East Asia, usually the market for a third of Australia's wool exports, were up sharply in the first half.

Beef exports rose 12 percent in 1985 from 1984's extremely low volume. Exports to the United States increased 21 percent and

Australia's major agricultural exports and principal markets

	1984/85		1985/86(f)		Principal markets
	1,000 tons	\$A Mil.	1,000 tons	\$A Mil.	
Wheat	15,265	2,800	15,700	2,900	Egypt, USSR, China, Iran
Wool, greasy equiv.	772	2,538	785	2,800	EC, Japan, USSR
Beef & veal	416	1,086	460	1,250	United States, Japan
Barley	4,221	610	3,050	375	Saudi Arabia, Japan, Taiwan, USSR
Sugar	2,524	574	2,600	600	Japan, Canada, South Korea, Malaysia, China
Dairy products	--	421	--	470	
Cheese	68	164	70	170	Japan, Saudi Arabia, Indonesia
Milk powders	142	161	147	190	Taiwan, Malaysia, Philippines, Indonesia
Cotton	140	260	225	350	Japan, Taiwan, other Asian countries
Live sheep	6.75 1/	201	6.50 1/	200	Saudi Arabia, Kuwait, other Middle East
Lamb & mutton	98	163	120	190	Japan, UAE, Saudi Arabia
Sorghum	1,594	242	1,000	150	Japan, Taiwan
Rice, milled equiv.	327	122	500	160	Papua New Guinea, Hong Kong, Saudi Arabia
TOTAL	--	10,300	--	10,800	

1/ Million head.

SOURCES: Australian Bureau of Statistics, Bureau of Agricultural Economics, and USDA.



# U.S. agricultural imports from Australia

Commodity	1983	1984	1985
Million dollars			
Beef & veal	569.3	480.6	473.6
Sheepmeat	4.3	3.7	6.4
Dairy products	30.2	24.3	17.7
Wool	75.0	86.9	75.6
Sugar & related products	83.3	109.0	58.1
Fruits, nuts, & veg.	6.8	9.5	19.9
Grain & products	14.4	17.5	15.0
Beverages	8.1	9.6	10.4
Other	13.6	13.7	25.5
TOTAL	805.1	754.7	702.1
1,000 tons			
Beef & veal	278.8	243.3	265.7
Sheepmeat	1.9	1.7	3.7
Casein	8.5	7.0	5.5
Cheese	3.9	4.1	3.9
Wool	21.2	23.6	21.6
Sugar & related prod.	245.7	433.7	388.7

SOURCE: Bureau of the Census, U.S. Dept. of Commerce.

reached 63 percent of the total. Shipments to Japan were up less than 1 percent. Shipments to other Asian countries declined because of South Korean import policies and competition in the Singapore and Malaysian markets. Exports are forecast to increase 4 percent in 1986.

Sheepmeat exports increased 34 percent in 1985. Shipments to Japan were up 15 percent, Iran reentered the market for mutton, and gains were recorded to most other major markets. The number of live sheep exported fell 3 percent because of the Middle East's economic problems and stiff competition in meat sales. Meat and live animal exports are projected to increase in 1986.

## U.S. Agricultural Exports Declining

U.S. agricultural exports to Australia declined 2 percent in value in fiscal 1985 to \$132 million. Tobacco, nuts, and fruit remained the major commodities. Shipments fell 41 percent in the first 4 months of fiscal 1986.

## Outlook Pessimistic For Australian Farmers

World grain and cotton prices are likely to decline and the Australian dollar to appreciate

# U.S. agricultural exports to Australia

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animals & animal prods.	10.5	12.2	10
Grains & feeds	5.8	5.1	5
Fruits & prep.	15.6	14.0	11
Nuts & prep.	16.8	15.4	14
Vegetables & prep.	19.1	17.3	16
Oilseed & prod.	18.3	18.7	15
Tobacco	26.9	26.8	23
Field & garden seeds	6.1	5.9	6
Sugar & tropical prod.	8.9	10.9	9
Other	6.4	5.6	6
TOTAL	134.4	131.9	115
1,000 tons			
Fresh fruits	12.6	12.5	8
Almonds (shelled basis)	2.5	2.8	2
Frozen vegetables	10.0	7.3	6
Pulses	5.8	2.9	3
Protein meal	18.2	15.6	15
Soybeans	12.5	29.0	10
Vegetable oils	3.8	2.5	2
Tobacco	3.9	4.0	4

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

in 1986, exacerbating the financial difficulties faced by Australian farmers. Farmers who are heavily in debt or encounter bad weather will have severe problems.

Agricultural resources will continue to move from crops to livestock. Grain area will depend on fall and winter weather; with average conditions, wheat area may decline to about 11.9 million hectares. Coarse grain area may decline more significantly because coarse grains are not covered by a guaranteed price and prices have been very low this season. Rice and cotton area is also expected to decline while oilseed area could increase. [Sally B. Byrne (202) 786-1611]

## NEW ZEALAND

New Zealand agriculture is undergoing a massive transition. The nation's economy is being restructured, and the medium-term effects on agriculture are higher costs, declining prices, and greater exposure to risk.

Good weather and a weak currency supported incomes in 1984/85 (April–March), but farm incomes were down sharply in 1985/86 and will likely remain poor this year.

The Labor Government is pursuing a program to improve efficiency in the New Zealand economy by reducing trade barriers, subsidies, and other Government-imposed distortions to market signals. The major thrusts of this program are the phasing out of restrictions on manufactured imports, removal of price subsidies to agricultural products, and allowing the currency to float. The timing of these changes appears to have disadvantaged the agricultural sector.

In July 1984, the Government devalued the New Zealand dollar by 20 percent, improving export returns to beef, wool, and dairy products and reducing the subsidy paid to sheepmeat producers. Simultaneously, Government input subsidies were reduced and user fees for inspection and other services were imposed, while costs of imported inputs were forced up by the devaluation. Inflationary forces in the economy accelerated, so that the dollar's rise in the second half of 1985 brought no measurable relief from cost increases.

By early 1986, the Government recognized that the agricultural industry was bearing the greatest burden of the economic reforms. To counter pressure for renewed assistance, the Government adjusted some tax measures that had threatened investment in agriculture and accelerated the dismantling of protectionism in other sectors of the economy.

New Zealand farmers are being exposed to the realities of the marketplace at a time of weak world demand for many of their products. EC and U.S. dairy product surpluses overhang the world market, and New Zealand dairy farmers' incomes were down about 18 percent in 1985/86 despite a drawdown in Dairy Board reserve funds. Incomes will drop further this year. Beef exports face stiff competition from subsidized EC exports. Demand for sheepmeat is weak, largely because of competition from other meats. Income on sheep and beef farms is estimated to have declined over 50 percent in 1985/86 and may continue to slip in 1986/87. Kiwifruit supplies are expanding very rapidly from vines

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## New Zealand Economic Policy Changes Since July 1984

### Macroeconomic Policy:

- Devaluation of currency (July 1984)
- Floating of currency (March 1985); relaxation of restrictions on financial markets
- Reduction of import tariffs
- Phasing out of import licensing system
- Elimination of export subsidies
- Reform of tax law to remove distortions to investment decisions
- Goods and Services Tax (October 1986)
- Increases in the fuel tax and charges for road use, water, and electricity
- Budget deficits
- Tight monetary policy

### Farm and Processing Sector:

- Termination of Supplementary Minimum Price (SMP) scheme, formerly in effect for sheepmeat, beef, wool, and dairy products
- Elimination of interest rate subsidies for new farmers and output expansion and of subsidies provided for fertilizer, fertilizer transport, irrigation, vermin and weed control, and forestry projects
- Increased product inspection fees to recover costs
- Changes in taxation, specifically the cost basis of livestock and investment allowances
- Loosening of restrictions on foreign ownership of farm land

### Agricultural Marketing Boards:

- Removal of interest rate subsidies
- Relaxation of restrictions on domestic and foreign wheat sales
- Termination of national meat export pools, formerly controlled by the New Zealand Meat Producers Board

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planted under investment subsidies, and prices are likely to be forced down considerably.

### *Severe Inflation Clouds Economic Outlook*

The devaluation and the cessation of price controls in November 1984 spurred inflation. Buoyant economic growth permitted pass-through of price increases, which were



followed by aggressive wage demands. The inflation rate is estimated at almost 16 percent last year and may average about 15 percent in 1986/87. Adding to inflation will be a 10 percent value-added tax (the Goods and Services tax), to take effect in October 1986.

The New Zealand economy expanded strongly in 1984 and early 1985. However, inflation, including higher user fees for Government services, and the reduction in some transfer payments reduced disposable income and stifled consumer spending. High interest rates began to restrain investment. Thus, the economy slowed in the second half of 1985, and a further slowing is expected in 1986. Unemployment has been increasing since mid-1985 and may worsen this year.

The New Zealand dollar began to strengthen in June 1985, and by October the trade-weighted value of the dollar had regained half the amount lost in the 1984 devaluation. The major cause was the decline

in the currency of Australia, New Zealand's major trading partner, as well as the decline in the U.S. dollar. The New Zealand dollar fell back late last year and has remained slightly above its post-devaluation level.

#### *Weather, Policy Favor Production Increases*

Unusually good pasture conditions over the past 2 seasons have allowed milk production to expand significantly. Improved grass varieties are boosting productivity. The number of cows in milk increased 12 percent between 1981 and 1985 to 2.21 million. The average herd size is rising as farmers attempt to improve cash flow. In 1985/86 (June-May), production is expected to top last year's record.

With favorable weather and improved price prospects for beef, the cattle herd is expanding. The herd rose 2.5 percent last year and is expected to increase almost 2 percent to 8.1 million head in 1986. Calf slaughter remains low as dairy farmers raise male calves that were formerly sold shortly after birth. Adult slaughter rose 10 percent in 1984/85 (October-September) and is forecast to rise 8 percent this year. Beef and veal production may increase only slightly because average slaughter weights should be down.

Weather was less favorable in the major sheep regions in 1985 than in dairying regions, and sheep producers are facing deteriorating returns as a result of the termination of the Supplementary Minimum Price (SMP) scheme and reduction in other forms of Governmental assistance. The sheep herd was down 3 percent in 1985 and is likely to decline about 2.5 percent in 1986. Sheep slaughter was up 21 percent in 1984/85 because farmers sold many ewes prior to the termination of Government payments to the Meat Producers Board on September 30, 1985. Lamb slaughter jumped 15 percent because of a larger lamb crop, the result of good 1984 weather, and the incentive to market lambs before the end of the marketing year.

Average slaughter weights of lambs were sharply lower in 1984/85, and lamb production rose just 6 percent. Mutton production rose 17 percent. Lamb slaughter will decline a tenth this year because of a smaller lamb crop, and with a smaller herd, sheep slaughter will be down 17 percent. However, sheepmeat

Macroeconomic indicators: New Zealand

Item	Units	1984	1985(e)	1986(f)
<b>National Accounts:</b>				
Gross domestic prod.	Bil. \$NZ	37.5	43.0	47.2
GDP in 1975 prices	do.	11.8	11.9	11.7
Growth in real GDP	Percent	7.4	.9	-1.9
Share of GDP				
Exports	Percent	33.8	34.0	33.1
Gov't consumption	do.	14.1	14.3	14.6
Gross fix cap. form.	do.	22.4	24.8	20.4
Priv. cons.	do.	55.3	57.8	57.0
<b>Int'l Transact:</b>				
Total exp., f.o.b.	Mil. U.S.\$	5,473	5,424	5,800
Total ag. exp. 1/	do.	3,415	3,263	3,700
Tot. imp., f.o.b.	do.	5,497	5,247	5,500
Tot. ag. imp., c.i.f. 1/	do.	493	NA	NA
Bal. of total trade	do.	-24	177	300
Bal. of ag. trade 1/	do.	2,922	NA	NA
Balance w/the U.S.	do.	-254	500	NA
Bal. of ag. trade	do.	1,071	NA	NA
Share of tot. to U.S.	Percent	14	15	NA
Ag. commodities	do.	15	17	NA
Share from U.S.	do.	16	17	NA
Ag. commodities	do.	9	NA	NA
<b>Other Indicators:</b>				
Exchange rate	\$NZ/\$US	1.76	2.00	1.80
CPI	1980=100	152.7	176.9	198.4
Growth in CPI	Percent	5.0	13.9	11.7
Population	Million	3.2	3.3	3.3
Pop. growth rate	Percent	1.3	1.0	1.0
Per capita GDP	U.S. dollars	6,658	6,515	7,946

NA = Not available.

1/ July-June years; 1983/84=1984.

SOURCES: IMF, *International Financial Statistics*; Wharton, *Project Link*, March 1986; New Zealand Ministry of Agriculture and Fisheries.

# Agricultural production in New Zealand

Commodity	1983	1984	1985	1985/84
	1,000 tons		Percent	
Milk	6,879	7,687	7,766	101
Beef & veal	512	433	487	112
Wool	371	364	375	103
Mutton & lamb	680	668	729	109
Kiwifruit	35	64	87	136
Poultry meat	32	41	50	122
Barley	346	571	740	130
Indices of production	1976-78 = 100			
Crops	98	116	125	108
Livestock	108	107	114	107
Total				
agriculture	108	107	114	107
Per capita				
agriculture	105	103	109	106

NOTE: Commodities shown are in order of importance in 1985 gross agricultural income and represent over 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production.

production will probably decline only about 8 percent.

Wool production increased 3 percent in 1984/85 because of a higher yield per animal shorn. Production may be down 5 percent this season because of the smaller herd and a likely return to an average yield.

New Zealand farmers have turned to grain production as livestock returns have soured. Area increased 49 percent between 1980/81 and 1984/85 and increased an additional 7 percent this year. Wheat and barley account for most of the growth. With favorable weather, total grain production rose 18 percent in 1984/85. The 1985/86 outturn is estimated down 3 percent to 1.27 million tons; weather was dry early in the growing season and too wet late in the season, encouraging pests and disease, particularly in the wheat and barley crops.

## Agricultural Exports Expanding

The value of New Zealand's agricultural exports rose 33 percent to \$NZ 6.9 billion in 1984/85. Volume increased 8 percent, but most of the value gain is attributable to the devaluation of the New Zealand dollar. Export

# Farm and consumer food prices in New Zealand 1/

Commodity	1982/83	1983/84	1984/85	1985/1984
	\$NZ/ton		Percent	
Milkfat	3,180	3,400	3,810	112
Beef	3,002	3,400	4,281	126
Wool	2,559	2,963	3,774	127
Lamb	2,065	2,025	2,473	122
Mutton	1,208	1,323	1,565	118
Kiwifruit	2,957	2,811	2,761	98
Apples	647	698	735	105
Barley	185	207	203	98
Consumer price indices	Dec. 1983 = 100			
Food	98	104	119	115
Meat, fish, & poultry	96	102	112	110
Fruits & vegetables	97	101	112	111

1/ Milkfat price is basic price. Wool price is at auction. Other prices are export unit values.

SOURCES: New Zealand Department of Statistics and Foreign Agricultural Service, USDA.

value was up 1 percent in the first half of 1985/86. New Zealand exporters of bulk commodities are increasingly using barter to conclude sales.

Beef and veal exports increased 25 percent in volume in 1984/85. Most of the gain was in shipments to the United States, up 22 percent, and Canada, up 41 percent. Exports to Japan rose 31 percent. Lamb export volume fell 4 percent mainly because of reduced sales to Iran. Declines were also recorded to Eastern Europe, Canada, and Japan. Shipments expanded to the United States and the United Kingdom (UK). Since September 1985, New Zealand has paid a countervailing import duty of 36 NZcents/lb on lamb shipped to the United States. Mutton exports fell 12 percent because of reduced sales to the USSR.

Meat export volume rose 5 percent in the first half of 1985/86 from year-earlier levels. Export unit values were down. Effective December 1985, the New Zealand Meat Producers Board returned meat sales to the private sector, except lamb sales for the North American and Middle East markets. The outlook for meat exports is discouraging because of the need to renegotiate access to



# U.S. agricultural imports from New Zealand

Commodity	1983	1984	1985
Million dollars			
Beef & veal	336.9	297.6	320.1
Sheepmeat	19.2	10.8	27.0
Dairy products	131.6	144.5	134.0
Casein	82.3	95.2	86.4
Cheese	41.9	42.4	37.4
Wool	30.2	38.8	30.9
Sheep & lamb skins	12.4	16.1	15.6
Fruits, nuts, & veg.	25.3	36.2	41.8
Fruit, fr. & froz.	23.7	32.1	38.9
Other	33.8	37.2	39.5
TOTAL	589.6	581.1	608.9
1,000 tons			
Beef & veal	163.4	145.6	173.6
Sheepmeat	6.7	7.1	12.0
Casein	31.0	43.0	46.3
Cheese	19.8	21.4	20.1
Wool	12.5	15.2	12.8
Sheep & lamb skins	4.7	5.7	4.5
Fruit, fr. & froz.	24.5	25.5	40.4

SOURCE: Bureau of the Census, U.S. Dept. of Commerce.

the EC market and because of the drop in oil prices, which may affect demand for meat in the Middle East.

Wool export volume increased 3 percent in 1984/85; shipments increased to China, Japan, and the EC. Exports fell 17 percent in the first half of 1985/86. The rising New Zealand dollar made New Zealand wool prices uncompetitive with Australian and South African wools for apparel uses. In addition, the carpet industries of Japan and Europe are faring poorly, and China postponed purchases in expectation of the decline in the New Zealand dollar.

Dairy product exports rose 20 percent to \$NZ 1.7 billion last year. Butter, casein, and nonfat dry milk exports increased in volume while cheese exports fell back from the 1983/84 record. Dairy exports fell a tenth in the first half of 1985/86 although butter exports were up.

Exports of fruits and vegetables continue their rapid expansion. Value rose 22 percent last year and 49 percent in the first six months of 1985/86. Kiwifruit exports rose 39 percent in volume in 1984/85, with gains to all major markets. Apple exports rose 17 percent.

Barley exports increased from 17,000 tons in 1982/83 to 418,000 in 1984/85. Both feed and high-quality malting barley are exported. Saudi Arabia is the major market, and barley is also being exported to Asia, South America, and the United States. With a smaller crop, 1985/86 exports will remain near 400,000 tons.

## U.S. Agricultural Exports Declining

U.S. exports to New Zealand declined 5 percent in fiscal 1985 to \$31.5 million. The devaluation of the New Zealand dollar made imported goods more expensive, and prices rose more for U.S. than Australian or British products. With the economy entering recession, the demand for imported foods and tobacco will probably be down. U.S. exports fell 24 percent in the first 4 months of fiscal 1986.

## Outlook Gloomy for 1986 and 1987

Because of its resource base and marketing experience, New Zealand agriculture should thrive in a more market-oriented economy. However, the timing of the various elements of transition, given rigidities within the country, together with weak demand in the highly-protectionist world market, may cause severe hardship in the meantime. The Government has promised that no competent farmer will be forced off the land. Yet among the farmers most adversely affected by the policy shifts are young farmers selected in recent years to receive Government loans to establish farms

## U.S. agricultural exports to New Zealand

Commodity groups	Fiscal years		
	1984	1985	1986(f)
Million dollars			
Animals & animal prods.	1.9	2.5	2.0
Grains & feeds	1.3	.8	.8
Fruits & preparations	11.0	10.0	11.0
Nuts & preparations	3.3	4.3	4.0
Oilseeds & products	4.0	3.1	1.5
Tobacco	7.7	7.0	5.0
Other	3.9	3.8	3.7
TOTAL	33.1	31.5	28.0

SOURCE: Bureau of the Census, Department of Commerce; ERS estimates.

New Zealand's major agricultural commodities and principal markets

	1984/85		1985/86(f)		Principal markets
	Quantity	Value	Quantity	Value	
	1,000 tons	\$NZ Mil.	1,000 tons	\$NZ Mil.	
Dairy products	--	1,717	--	1,750	
Butter	174	636	190	600	United Kingdom (UK), Iran
Milk powders	296	506	300	500	Malaysia, Mexico, Venezuela, Algeria
Casein	78	294	80	300	United States (USA), Japan
Cheese	86	257	90	270	Japan, USA, UK, Australia
Wool, clean equiv.	278	1,479	250	1,300	Japan, UK, China, Other European Community (EC)
Lamb 1/	412	1,019	425	1,050	Iran, UK
Beef & veal 1/	222	952	220	850	USA, Canada, Japan
Hides & skins	--	357	--	440	EC, Japan, USA
Kiwifruit, fresh	62	172	105	235	Japan, West Germany, USA, France
Mutton 1/	84	131	70	90	Japan, UK
Apples, fresh	147	108	156	125	EC, Canada, USA
TOTAL	--	6,935	--	6,900	

1/ Shipped weight.

SOURCES: New Zealand Department of Statistics; Agricultural Review Committee; ERS.

in isolated areas. Under encouragement from pre-1984 programs, many farmers acquired large debts.

New Zealand has responded to declining returns for its traditional products by diversifying exports with increased sales of more highly processed and high-value goods. This trend is likely to continue at a slower pace. Cash-strapped farmers will be less able to invest in goats, deer, or horticulture, and tax law and user fee changes make such investment less attractive.

Row crop production will probably continue to expand through the 1980's; the SMP program had favored livestock production. Horticultural output will increase because of vines and trees already coming into production. Further investment will depend on success in exporting. The sheep herd is likely to shrink in the next few years; mutton production will thus be maintained, but lamb production will decline. Beef and milk production are expected to increase. [Sally B. Byrne (202) 786-1611]



# COMPETITION IN THE EAST ASIAN FARM MARKET

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**Abstract:** The United States faces strong competition in the East Asian market for agricultural products. Over the past two decades, U.S. exporters have captured a greater market share because of the United States' enormous productive capacity, reliability, and marketing efforts. In 1985, the U.S. market share declined for some products because of high U.S. prices and competition from China.

**Keywords:** East Asia, United States, market share, agricultural exports, competition.

## Introduction

East Asia imports about 15 percent of all agricultural products traded on the world market. The region's strong economic growth has allowed its 185 million people to improve and diversify their diets. A shortage of arable land forces the countries to import increasing shares of their food supplies. The region also imports raw materials for industry.

Hong Kong imports agricultural products freely, but the other countries impose severe restrictions on trade to protect their farmers and promote food self-sufficiency. Raw materials for livestock production (feed grains and oilseeds) or industrial use (fibers and hides) face the least significant restrictions. Imports of other bulk, low-value commodities, such as wheat, are discouraged, and many high-valued and processed products face high tariffs, tight quotas, or prohibition. Thus, the East Asian market tantalizes exporters. The tremendous actual and potential demand and the substantial trade barriers are challenges for exporting countries.

A review of developments in the region's agricultural imports provides an interesting perspective on the United States' world market position. East Asia now takes 28 percent of U.S. agricultural exports and is the primary market for a number of products, including meats, cattle hides, cotton, and citrus fruit. The United States increased its share of the region's agricultural imports through the 1960's and 1970's, gaining market share in all major commodities except pork.

East Asian agricultural Imports, 1984

	Japan	South Korea	Taiwan	Hong Kong	Total
\$U.S. million					
Australia	1,668	415	324	114	2,521
Canada	1,274	104	69	36	1,483
China	1,124	154	0	1,608	2,886
New Zealand	441	73	68	33	615
United States	7,689	1,872	1,592	619	11,772
ASEAN	1,630	393	226	275	2,524
EEC	1,116	95	133	300	1,644
East Asia	984	128	276	297	1,685
Other	2,788	239	296	309	3,632
Total	18,714	3,473	2,984	3,591	28,762

SOURCES: U.N. trade data; The Trade of China (Taiwan District) 1984.

However, U.S. shares of some commodities decreased during the 1980's.

The U.S. share of the region's grain imports has slipped in the last 2 years, largely because of competing Australian feed wheat and Chinese corn. U.S. soybean exports have also declined slightly. Cotton exports dropped in 1985 because of high U.S. prices and large supplies of low-priced cotton in China and other countries. The U.S. market share increased in the 1980's for many high-valued products, such as beef, fresh fruits, and cattle hides.

Success in the East Asian agricultural market requires meeting a range of criteria. First, the exporter must compete on price. U.S. exporters have been at some disadvantage in the recent past because of the strong dollar

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and high U.S. loan rates for grains and cotton, but over the longer term U.S. exporters have been competitive. U.S. PL 480 and Commodity Credit Corporation (CCC) loans were major factors in building U.S. markets in the region. U.S. traders generally enjoy lower freight rates than competitors because of the huge volume of trade across the Pacific.

Reliability of supply is important to most buyers and of great concern to the countries' governments for food security reasons. The 1973 U.S. soybean embargo damaged this country's reputation as a dependable supplier. Since then, the United States has regained its reputation; U.S. supplies are much more stable than competitors' because of the United States' large production base. U.S. agricultural commodities are almost always available for prompt shipment. U.S. grain exports are rarely delayed by dock strikes or other labor actions that sometimes affect Australia's exports. Because of the large volume of trade between the United States and East Asia and frequent, efficient shipping schedules, U.S. cotton can usually be delivered more quickly than that of geographically closer suppliers.

Quality of product is another competitive element. U.S. exports are generally considered to be of consistently high quality. Quality is difficult to evaluate in the aggregate but is assumed to be reflected in price. U.S. tobacco and citrus fruits, for example, receive higher prices than competitors'.

Exporters engage in aggressive marketing campaigns throughout East Asia. U.S. suppliers are among the most active, and product recognition for many U.S. goods is strong among consumers and importers. U.S. and other suppliers' promotions have been major influences in the Westernization of diets in the region.

As mentioned earlier, the Governments of Japan, South Korea, and Taiwan restrict imports of agricultural products; thus broader trade issues affect decisions on what is imported from which supplier. Because of the United States' expressed concern over its huge trade deficit with East Asian countries, government procurement agencies periodically seek out U.S. farm products. Taiwan does not

permit imports from China. Negotiating market access is a part of competing in the East Asian market.

### *East Asian Grain Market Changes Rapidly*

East Asia imports a fifth of the combined wheat and coarse grains traded on the world market. Following rapid growth through the 1960's and 1970's, the region's grain imports have increased slowly in the 1980's. The major changes in the market in recent years have been the emergence of China as a corn exporter, the sale of Australian feed wheat, the absence of South African corn, and the instability of Argentina as a supplier.

### *Wheat*

Abundant exportable supplies allowed the United States to capture most of the growth in the East Asian wheat market during the 1960's and 1970's. By the early 1980's, the United States took 70 percent of the import volume, and Canada and Australia the remainder.

Then, in 1984 South Korea imported 624,000 tons of Australian feed wheat. Australia offered the wheat at low prices at a time when South Korea was diversifying its feed grain sources away from U.S. corn. The feed wheat was well received by feed compounders, and in 1985 South Korea imported 954,000 tons.

Despite the drop in its share of total East Asian wheat imports, the U.S. share of wheat imported for food has remained at about 70 percent. The United States dominates the markets in South Korea, Taiwan, and Hong Kong, but it faces substantial competition in Japan. Japan has informal supply arrangements with Canada and Australia for yearly imports of about 1.3 and .9 million tons, respectively. During 1975-78, the United States and Japan entered into a similar supply-purchase arrangement, which also included feed grains and soybeans. Since then, U.S. stock levels have been large, and Japan has not sought such assurances of access to U.S. supplies.

The Canadian and Australian Wheat Boards and U.S. Wheat Associates, a marketing organization, promote their wheats throughout the region, targeting



decision-makers in the milling and baking industries. Marketing efforts concentrate on demonstrating methods to obtain high-quality baked goods and noodles from each country's wheat. Ongoing trade service programs are an integral part of the promotional strategies. Assessment of the marketing efforts' effectiveness is difficult because in any one year, competitors' shares of the East Asian market may be restrained by their production levels.

### *Coarse Grains*

The United States' enormous productive capacity has allowed it to fill East Asia's booming demand for coarse grains. U.S. exports reached 22 million tons in 1983 from less than 2 million in the early 1960's. Other suppliers' exports to the region have fluctuated from year to year, depending on supply availability and the level of their exports to other regions of the world. South Africa's corn exports plummeted in the early 1980's because of severe drought, and Argentina exported less grain to East Asia because of their large corn and sorghum exports to the USSR. Australian exports, mostly sorghum and barley, have increased as production has expanded since the 1982/83 drought.

In 1984, China became a significant corn exporter, and in 1985 their shipments to East Asia exceeded 4 million tons. China offered corn at prices sufficiently lower than other suppliers to overcome buyers' reluctance to purchase corn of uncertain quality from an untested source. South Korea's policy of diversifying feed imports also encouraged China's sales. Japanese buyers were unhappy last year with U.S. corn's high moisture content. U.S. corn exports to East Asia fell 3.5 million tons in 1985 to 11 million.

In the 1960's and 1970's, market development programs of the major suppliers concentrated on promoting livestock feeding operations. The emphasis is now on demonstrating the attributes of an individual grain—U.S. corn versus Canadian barley, for instance. The region's coarse grain imports are about 75 percent corn, 18 percent sorghum, and 7 percent barley. Japan has an informal arrangement with Canada to import 900,000 tons of barley annually.

### *U.S. Soybeans Dominate Oilseed Trade*

East Asia's oilseed imports increased rapidly through 1983 and have since levelled off. Over 70 percent of imports are U.S. soybeans; Canadian rapeseed provides the greatest competition. The U.S. share of the region's soybean imports reached 97 percent in 1982 but has since dropped back. The U.S. soybean industry has promoted soybeans aggressively in East Asia, principally by promoting intensive livestock production. Taiwan imports soybeans almost exclusively from the United States, as did South Korea until 1985, when it imported 89,000 tons from Brazil. Japan imports 100,000–300,000 tons of soybeans for food use from China each year and takes occasional shipments from Brazil.

Early in the 1970's, Japanese firms invested in soybean production in Brazil in an attempt to diversify their sources of supply. However, Brazilian taxation policy favors exports of soybean meal rather than beans, and Japan imports very little meal. Therefore, the United States continues as the predominant supplier. Japan imported 276,000 tons of soybeans from Brazil in 1985 because of favorable prices and a high oil content.

Canada has made great efforts in the 1980's to promote sales of rapeseed. Improved varieties have been developed which do not have the nutritional problems associated with rapeseed oil and meal. These varieties are called "Canola." Nevertheless, Canada's share of East Asia's oilseed market has not improved.

### *East Asia-- A Lucrative Market for Meats*

East Asia is a coveted market for meat exports, because of its enormous potential and current favorable returns. The region's imports of meat and meat products are over \$2 billion annually. In addition, Hong Kong imports over \$300 million worth of live hogs and chickens from China for slaughter, and Japan imports slaughter and feeder cattle, mostly from Australia.

Over the past two decades, meat consumption has expanded enormously, as rising incomes have permitted diets to become more Westernized. Meat exporters' promotions have contributed to this growth by attempting to increase both total meat



consumption and each product's share of meat expenditures. Competition usually centers on price. Australia and New Zealand supply cheap beef and mutton mainly for manufacturing purposes, and several Asian suppliers provide the lowest-cost pork and poultry meat. In the high-quality market sector, price is still a major consideration, but suppliers also use advertising, hotel demonstrations, and other promotional tools to attract consumer loyalty. The Australian Meat and Livestock Corporation and New Zealand Meat Producers Board promote beef and lamb, and the U.S. Meat Export Federation promotes U.S. red meats.

Japan, South Korea, and Taiwan restrict imports through quotas, licensing, and tariffs. Government and quasi-governmental agencies control Korea's and Japan's imports. Exporting countries have expanded shipments to Japan by negotiating larger quotas as well as by marketing efforts.

### *Beef*

Through the 1970's, Japan accounted for most of the growth in East Asia's imports of fresh and frozen beef and veal. During the 1980's, Japan's imports rose at a rate of 4 percent annually. Australia and the United States have negotiated increases in Japan's import quotas.

The U.S. share of Japanese imports reached 31 percent in 1985, up from 13 percent in the late 1970's. New Zealand supplies about 5 percent, and Australia remains the largest supplier. The Japanese prefer a well-marbled beef such as the United States can produce. Australia's lean, range-fed beef is used primarily for processing. In the 1970's, Australian firms established feedlots to produce grain-fed beef for the Japanese market. However, these enterprises were uneconomic because of Japan's suspension of beef imports in 1974 and the lack of demand for grain-fed beef on the Australian market.

Japan imports over \$200 million in beef offals annually. Primarily defined as organ meat, the category also includes diaphragm meat, which is similar to muscle tissue and is reformed into steaks and used in other manufactured products. Japan allows certain offals to be imported outside its quotas, and

tariffs have been reduced. Specific trade data for diaphragm beef are not available, but Japan's imports of non-quota beef offals rose from 13,000 tons in 1975 to 74,000 tons in 1985, with the U.S. share rising from 24 to 82 percent.

South Korea began importing beef in the late 1970's to meet growing consumer demand. Purchases for general consumption were made through tenders, and Australia's low prices allowed it to capture virtually the entire market. In late 1983, because of falling domestic cattle prices, South Korea halted beef imports, except for a small amount for hotel use. In late 1985, hotel beef imports were suspended.

Taiwan imports beef almost exclusively from Australia. Hong Kong's imports come mainly from China, Brazil, New Zealand, and Australia.

The United States and Australia have held the Japan, South Korea, and Taiwan markets because they are free of hoof and mouth disease. Recently, however, Ireland and Denmark have been declared free of the disease, and with the EC accumulating large beef stocks, they have been seeking new export markets. Australia negotiated with the EC to prevent subsidized beef sales in Australia's Asian markets. The Andreissen Agreement may have prevented a substantial change in the East Asian beef market in 1985.

### *Pork*

Japan's imports of fresh and frozen pork increased from 2 tons in 1962 to 183,000 in 1981. Little growth has occurred in the 1980's, and the U.S. share of the market has declined since the mid-1970's. In contrast to beef, the U.S. pork industry is unable to meet Japanese needs. Because of U.S. consumer preferences, Japanese specifications for pork cuts are often unprofitable for U.S. processors at prevailing price levels. The strong dollar has also priced U.S. pork above the competition. Canadian pork is also uncompetitively priced. Taiwan and Denmark have become the major suppliers. Taiwan offers low prices, and Denmark features aggressive marketing and market servicing. Denmark has recovered from its loss of market share following the 1983 outbreak of hoof and mouth disease with a market share higher than before.



Hong Kong imports 90 percent of its pork from China, which benefits from geographic proximity and close business ties. South Korea and Taiwan do not import significant amounts of pork.

### *Poultry Meat*

Japan and Hong Kong's poultry meat imports are closely linked to the Westernization of diets, specifically American-style fast foods. The U.S. share of Japan's imports reached 64 percent in 1983 but has since declined. Thailand has established a successful chicken-meat export industry, and subsidized French and Brazilian exports have made inroads in the Japanese market. Since 1984, boneless chicken "nuggets" have gained popularity at the expense of U.S. chicken legs. Lower labor costs allow Thailand to sell boneless meat below competitors' prices.

The U.S. share of Hong Kong's poultry meat imports continued to increase in 1985. South Korea and Taiwan import very little poultry meat.

### *Region Takes Over 60 Percent of U.S. Cattle Hide Exports*

The United States has gradually increased its share of East Asia's cattle hide imports because it is the only supplier able to provide the volume and quality demanded. In the 1980's, the U.S. share has risen significantly as Australian and New Zealand cattle slaughter has been well below levels of the late 1970's.

### *Competition Intensifying in Cotton Market*

East Asia imports a third of the cotton traded on the world market. The four markets are major exporters of textile products, but they have lost sales in recent years to China and other Asian countries, which have lower wage rates. Thus, the region's cotton imports have shown little growth since the late 1970's. New cotton exporters—Australia and China—have entered the market, and the U.S. share, which reached 59 percent in 1982, fell to 44 percent in 1985.

Japan is the largest cotton-importing country, and its market is highly competitive. In the 1960's and 1970's, the United States built its market share via credit and a

reputation for high quality and reliability. The Cotton Council International conducts aggressive promotional campaigns, targeting consumers as well as spinners. Price competition is also important, especially in the middle and lower grades. Suppliers' export availabilities vary widely from year to year, depending on crop size and quality.

As the largest exporting country, the United States often gains from a competitor's crop shortfall. In 1984, the U.S. share of Japan's cotton imports rose because of low prices and freight rates. The U.S. share fell sharply in 1985 because of high prices. China was able to gain sales at low prices, after correcting some delivery problems. China is also beginning active market development programs, including trade missions.

Through Commodity Credit Corporation financing, U.S. cotton has held most of the South Korean market. However, the share of imports from other suppliers increased from 5 percent in 1980 to approximately 25 percent in 1985.

Importers in Taiwan and Hong Kong purchase on the basis of price. Thus, the U.S. market share depends on the relative availability of U.S. and other cottons. China's share of the Hong Kong market rose from 2 percent in 1982 to 54 percent in 1985.

### *U.S. Fruit Exports Expanding*

Strong promotional efforts and high quality have gained U.S. fruits an increasing share of East Asian imports and consumption. The U.S. share of citrus fruit imports has risen from 55 percent in the early 1960's to 90 percent in the 1980's. The U.S. share of other fresh fruit imports has risen from 6 percent to over 20 percent. The Philippines has gained the largest share of noncitrus fruit imports with tropical fruits, mainly bananas. New Zealand has also achieved success through aggressive promotion of high-quality fruit.

### *Outlook Promising*

Over the past two decades, the United States has built strong demand for its agricultural products in East Asia. The United States' enormous productive capacity and willingness to hold stocks have provided the foundation for its large market share. U.S.

Suppliers of East Asian agricultural imports

Item	1962- 64	1969- 71	1979- 81	1983	1984	1985
Percent						
WHEAT						
Australia	13	19	12	12	18	21
Canada	34	18	17	18	17	15
USA	52	61	71	70	63	64
Other	1	1	--	--	2	--
Total						
(Mil. tons)	4.0	6.8	8.4	8.5	9.6	9.4
CORN, SORGHUM & BARLEY						
Argentina	3	13	4	10	7	6
Australia	1	7	6	1	7	7
Canada	1	4	3	4	3	3
China	2	--	--	--	1	16
South Africa	19	6	7	5	--	--
Thailand	14	11	2	1	1	2
USA	54	52	77	78	80	65
Other	6	7	1	1	2	--
Total						
(Mil. tons)	4.0	11.0	25.2	28.2	27.6	28.6
SOYBEANS						
China	15	9	3	4	5	4
USA	85	91	96	95	94	90
Other	--	--	1	1	1	6
Total						
(Mil. tons)	1.6	3.6	5.8	7.1	6.5	7.3
OTHER OILSEEDS 1/						
Canada	20	38	74	66	68	73
China	2	3	4	13	12	7
ASEAN	23	19	6	4	3	3
USA	20	3	4	3	3	2
Other	35	36	12	14	14	15
Total						
(Mil. tons)	.8	1.2	1.7	1.8	1.9	1.9

Continued--

exporters have a reputation for reliability of supply and delivery.

In 1985, the U.S. share of the East Asian market declined for several commodities. The two major factors were China's massive export drive and relatively high U.S. prices, exacerbated by a high-valued U.S. dollar. Under the new farm legislation, U.S. exporters should be more price competitive over the next several years.

China will continue to be a significant factor in the corn and cotton markets, perhaps willing to undercut virtually any price offered, because hard currency has a much greater value to the country than its domestic productive resources. Thus, China may hold the low-price end of these markets while U.S. exporters compete with other traditional suppliers for the rest. Thailand may export 1 million tons of corn to South Korea in 1986 and is expected to become a major supplier to

Suppliers of East Asian agricultural imports--Continued

Item	1962- 64	1969- 71	1979- 81	1983	1984	1985
Percent						
TOTAL MEATS & MEAT PROD.						
Australia	17	23	27	25	20	18
Canada	1	4	8	8	5	5
China	17	18	9	11	10	8
EC	5	5	10	6	14	15
Latin America	13	11	5	3	4	5
New Zealand	22	16	6	5	5	6
Taiwan	--	2	4	5	8	11
United States	18	15	24	26	25	26
Other	10	6	7	11	9	7
Total						
(\$U.S. Mil.)	52	227	2,121	2,340	2,376	2,258
BEEF & VEAL 2/						
Australia	66	73	76	69	61	56
China	7	5	3	5	6	5
New Zealand	18	13	4	7	5	6
USA	--	1	14	16	21	24
Other	9	8	3	3	7	7
Total						
(Thous. tons)	8	34	186	254	222	210
PORK 2/						
Canada	--	11	21	19	12	9
China	51	33	13	23	20	20
Denmark	5	1	28	9	30	31
Taiwan	1	9	11	15	20	27
USA	38	38	22	16	9	5
Other	5	8	5	18	9	7
Total						
(Thous. tons)	9	44	169	222	251	248
POULTRY MEAT 2/						
Brazil	--	--	--	1	5	8
China	11	25	28	23	18	8
EEC	4	23	2	4	5	5
Japan	--	1	4	3	4	5
Thailand	--	--	13	13	17	20
USA	81	32	50	55	49	48
Other	4	19	3	1	2	6
Total						
(Thous. tons)	10	46	143	170	174	181

Continued--

East Asia in the next few years as quality problems are corrected.

The United States is likely to maintain its predominant market share for other bulk commodities. Because of tight government controls on agricultural imports in Japan, South Korea, and Taiwan, access for U.S. products will also depend on broader trade issues.

The U.S. market share of processed and high-valued farm products has potential for further improvement. Because many competitors benefit from lower wage rates or government export subsidies, U.S. exporters will compete through aggressive marketing, reliability, and quality.



## Suppliers of East Asian agricultural imports--Continued

Item	1962- 64	1969- 71	1979- 81	1983	1984	1985
Percent						
COTTON						
Australia	--	1	3	5	6	10
Brazil	6	12	1	4	--	--
China	--	--	--	3	9	13
Egypt	2	2	2	2	2	2
India	5	4	3	5	2	1
Mexico	20	13	5	3	5	2
Pakistan	8	4	5	7	2	15
Sudan	1	2	2	4	2	1
USSR	--	5	6	5	3	1
United States	39	31	54	49	53	42
Other Africa	4	9	6	6	5	3
O. Latin Amer	14	14	10	6	8	8
Other	1	3	3	1	3	4
Total (Thou. tons)	908	1,121	1,450	1,422	1,518	1,569
CATTLE HIDES						
Australia	15	13	9	8	5	3
Canada	3	4	6	6	7	6
EC	5	5	3	1	1	--
Latin America	4	4	1	1	1	--
New Zealand	2	2	4	4	2	2
United States	58	62	72	78	80	86
ASEAN	7	3	2	1	1	1
Other	6	7	3	1	3	2
Total (Mil. \$U.S.)	63	107	720	701	949	811
FRESH CITRUS FRUIT						
China	27	20	6	3	2	2
East Asia	2	8	2	3	2	3
South Africa	7	4	2	2	5	--
United States	56	64	89	90	88	92
Other	8	4	1	2	3	3
Total (Thous. tons)	60	168	504	696	579	485
OTHER FRESH FRUIT						
Australia	3	1	2	2	2	2
China	12	11	9	9	7	5
East Asia	38	33	11	12	12	10
Latin America	38	41	2	2	2	3
New Zealand	--	--	5	8	9	8
Philippines	2	8	43	42	43	47
Thailand	--	1	3	3	3	3
United States	6	3	23	20	21	21
Other	1	2	2	2	1	1
Total (Mil. \$U.S.)	50	187	627	676	741	655

-- = zero or nil.

1/ Includes flaxseed, rapeseed, peanuts, cottonseed, sunflowerseed, copra, palm nuts, castor oil seed, sesame, and safflower. 2/ Fresh and frozen.

SOURCES: U.N. trade data; The Trade of China (Taiwan District).

## East Asian agricultural imports and U.S. share

Commodity group	1980		1984	
	Value	U.S. share	Value	U.S. share
	\$U.S. Mil.	Percent	\$U.S. Mil.	Percent
Grains & prep.	6,549	71	6,792	68
Oilseeds	2,411	73	2,942	69
Meats & live animals	2,278	23	2,791	22
Fruits, nuts, vegetables	2,088	32	2,606	29
Animal feeds	782	43	910	34
Sugar & trop. prod.	4,194	2	2,874	2
Cotton	2,713	57	2,706	52
Wool	944	0	959	0
Hides, skins, furskins	719	62	1,224	63
Tobacco	667	72	858	76
Other	3,273	16	4,100	13
Total	26,617	41	28,761	41

SOURCE: U.S. trade data; The Trade of China (Taiwan District).

# CHANGES IN THE PATTERN OF COMPARATIVE ADVANTAGE AND AGRICULTURAL PROTECTION IN JAPAN AND SOUTH KOREA

Thomas Vollrath\*

**Abstract:** Economic development in Japan and South Korea and exposure of their economies to the international market have dramatically altered their pattern of comparative advantage, making protection of domestic agriculture increasingly costly. Despite growing agricultural protection, both countries have experienced declining agricultural self-sufficiency. Budgetary outlays and resource opportunity costs will continue to escalate unless more market-oriented agricultural policies are adopted.

**Keywords:** Agricultural protection, food security, comparative advantage, East Asia, Japan, South Korea.

U.S. agricultural exports to East Asia in 1984 were valued at \$10.6 billion, for the first time surpassing the value of shipments to Western Europe. But the value to East Asia would have been still higher if these countries had had more liberal agricultural trade policies.

East Asia includes Japan and South Korea, two of the largest potential growth markets for U.S. agricultural exporters. This study provides estimates of revealed comparative advantage, self-sufficiency, and nominal and effective rates of protection in Japan and South Korea. Information about the effects of their agricultural policies on economic welfare and trade performance is obtained from a multicommodity stochastic simulation model developed by Tyers and Chisolm (11).\*\*

## *Roots of Protectionism in Agriculture*

Agricultural assistance in Japan and South Korea is provided principally through support prices which are often linked to border measures such as tariffs, quotas, licensing, and

State trading practices. These have resulted in increased internal prices, domestic production, and stockholding, while reducing consumption and imports. It is ironic that countries in East Asia have chosen to insulate their farmers from the competitive pressures of the international market, considering the benefits they have reaped from integrating their industrial sectors into the world economy.

A number of factors explain the rise in agricultural protection. Chief among them is the declining ability of East Asian agriculture to survive without government intervention. Terms of trade have shifted against resources employed in agriculture, primarily in response to shifts in the patterns of comparative advantage toward light and medium-to-heavy manufacturing. The shift in comparative advantage from agriculture to industry occurred at such a rapid pace that the social and political difficulties in adjusting the intersectoral allocation of resources probably would have been unbearably large without protection (8).

The memory of food shortages and hunger during and after World War II, especially by the older population in Japan, provided an incentive and a rationale to undertake whatever measures were needed to maintain high levels of domestic food production regardless of cost. There is little awareness, however, that a stable supply of staple foods can be accomplished in more than one way. Food self-sufficiency is often erroneously considered synonymous with food security in industrial East Asia. Moreover, Japan's and South Korea's self-reliance in feeding their

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\* The author is an economist in the Agricultural Development Branch of the Economic Research Service. He gratefully acknowledges the assistance of Sharlan Starr and Mary Wright who accessed the UN Tradenet data used to calculate relative trade shares.

\*\*Underscored numbers in parentheses cite sources in the references at the end of the article.



populations is illusory, given their dependence upon imports of such essential inputs as fertilizer and feedstuffs.

Political and institutional arrangements contribute to agriculture's relatively high level of protection. In Japan, the ruling Liberal Democratic Party derives much of its strength from rural districts which have wielded disproportionate political power, leading to legislative programs that enhance rural and agricultural welfare. In South Korea, the resistance of nonfarm groups to agricultural protection has been reduced by a concern for maintaining political stability in view of the threat of North Korean aggression (7).

Agricultural labor productivity is constrained by land tenure systems which keep farm size small, severely inhibiting economies of scale. Average farm size in Japan is slightly greater than one hectare, limiting possibilities of substituting capital for land and labor. In South Korea, land laws have had the effect of keeping farm size less than 3 hectares. In Japan, the majority of cattle raisers live in remote depopulated areas and the average herd has less than eight head. In both countries land leasing and contracting are inhibited by laws that make it difficult to evict tenants and by land rents that are controlled at low levels.

Farm lobbying efforts to maintain income parity have obviously influenced agricultural legislation. Drawing upon the economic theory of politics, Hayami contends that the rise in protectionism of agriculture in East Asia is primarily due to the downward shift in the marginal cost to politicians of providing protection rather than an outward shift in demand (7). Urban industrial, commercial, and labor groups have become more tolerant of agricultural protectionism because wages have increased and agriculture's share of national income, employment and consumption has decreased, diminishing the burden for that policy.

#### *Changing Composition of Trade and the Dynamics of Comparative Advantage*

In the early stages of development, most countries have a comparative advantage in agriculture and focus their economic development efforts in farming. At later

stages, as the ratio of capital to labor increases, emphasis is usually redirected towards manufacturing. Typically, industrial development is initially concentrated in unskilled-labor-intensive primary processing, and subsequently shifts to skilled-labor-intensive activities.

Observed trade flows have been used to approximate a country's comparative advantage. Balassa was the first to employ relative export shares as measures of "revealed comparative advantage" (3).<sup>1/</sup> He utilized only export data, excluding imports because they are more subject to distortions that can mask the real pattern of comparative advantage.<sup>2/</sup>

The 1962-83 pattern of relative export shares shows the changing importance of

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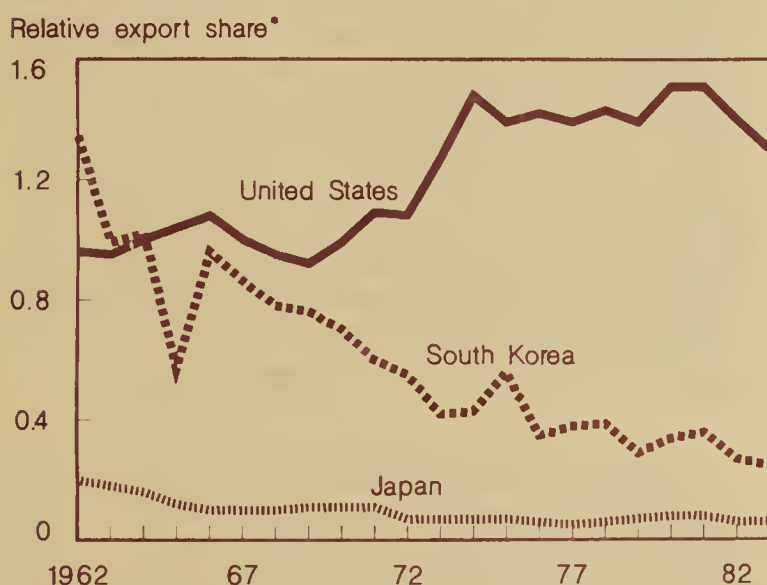
1/ The relative export share estimate of comparative advantage equals the share of a country's exports of a particular commodity divided by the country's share of total trade. For example, Japan had 0.3 percent of world agricultural exports and 1.7 percent of world merchandise exports in 1962, so the relative export share of agriculture was  $0.3/1.7$  or 0.2. A relative export share coefficient greater than one indicates a comparative advantage for the particular good under investigation; a coefficient less than one indicates a comparative disadvantage. A shortcoming of the relative export share estimate as a proxy for comparative advantage is that it does not net out the effects of policy on the pattern of trade.

2/ Comparative advantage refers to the special ability of a country to provide one commodity relatively more cheaply than other products or services. It explains why a country capable of providing a wide range of goods and services at a lower cost than any other country should concentrate on selling that good or service for which its cost advantage is greatest and leave the production of other commodities, in which it has a positive but lesser cost advantage, to other countries. In other words, the concept of comparative advantage explains why producers with an absolute advantage in a number of goods and services are still best advised to concentrate on producing that commodity in which their advantage is greatest (6).

agriculture as a source of foreign exchange for South Korea, Japan, and the United States (fig. 1). Not only has South Korea not displayed a revealed comparative advantage in agriculture since 1965--when its relative agricultural export share coefficient last exceeded that of the United States--but it has demonstrated a growing revealed comparative disadvantage in agriculture, portrayed by a share rapidly declining below 1.0. Japan's small and falling relative agricultural export shares throughout the 22-year period are understandable, given its comparative industrial strength and its weak agricultural resource endowment.

The growth of manufacturing provided the foundation for Japan's rapid rise in per capita income and emergence as an economic superpower. Light manufacturing, which consists of such basic commodities as clothing, footwear, furniture, cutlery, and plastics, was a more important source of foreign exchange for Japan during the 1960's than medium-to-heavy manufacturing, which includes such goods as motor vehicles, railroad equipment, agricultural machinery, telecommunication equipment, firearms, and medical products (fig. 2).<sup>3/</sup> However, the structure of the Japanese industrial export sector changed significantly in response to

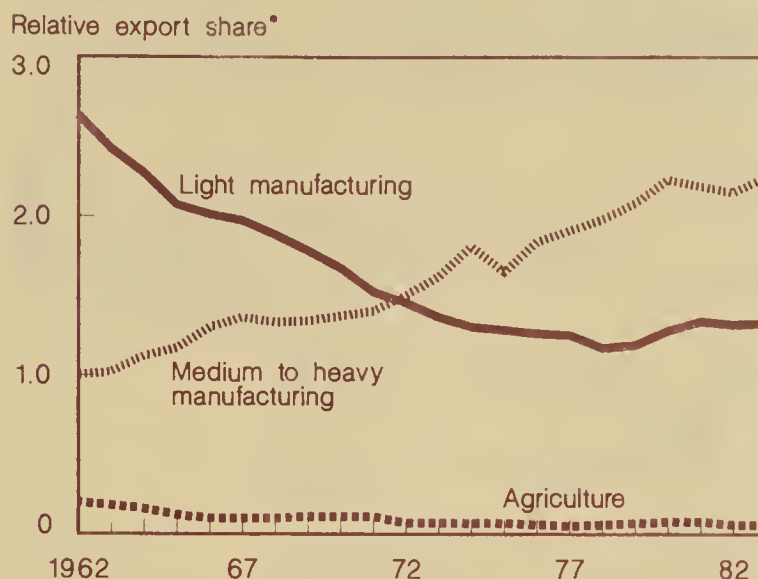
Figure 1  
**Revealed Comparative Advantage for Agriculture**



• See text footnote #1.

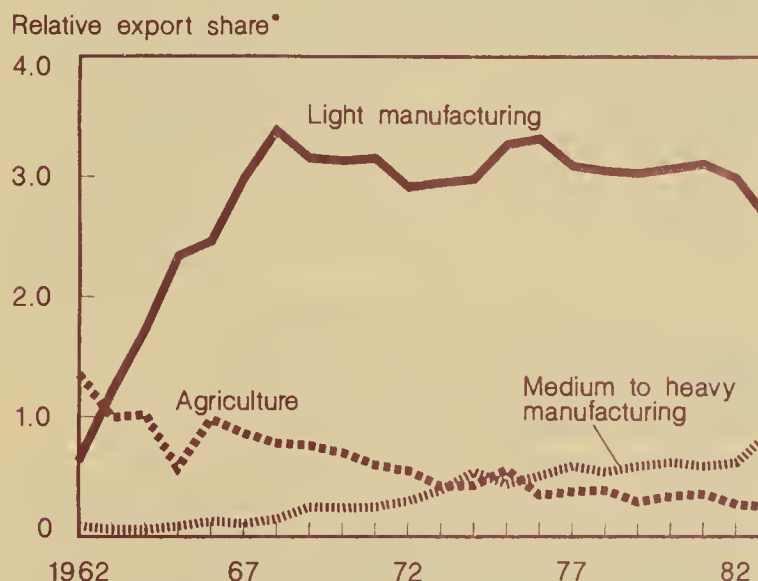
3/ Light and medium-to-heavy manufacturing include, respectively, the following SITC code sets: 1) 8, 61-65, 69, 553, 58, 59 and 2) 54, 7, 9510.

Figure 2  
**Patterns of Revealed Comparative Advantage for Japan**



• See text footnote #1.

Figure 3  
**Patterns of Revealed Comparative Advantage for South Korea**



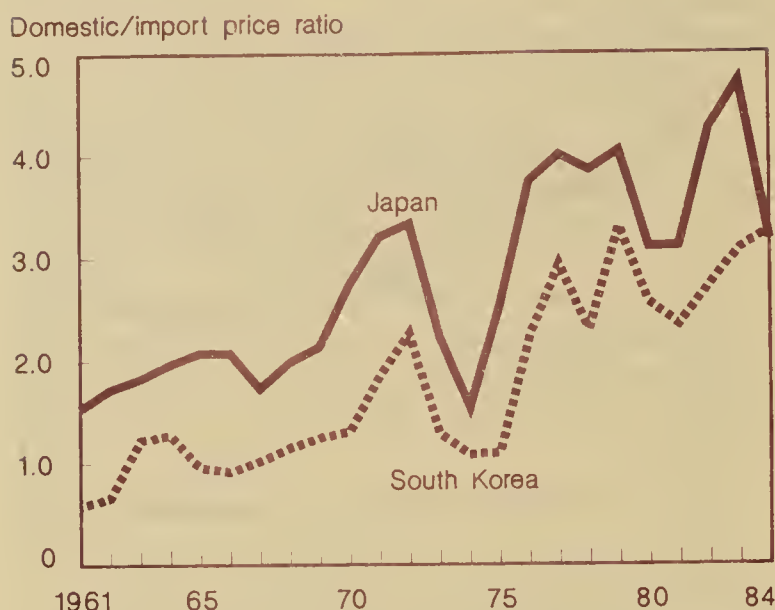
• See text footnote #1.

rapid accumulation of physical and human capital. This is shown by increasing relative export shares for medium-to-heavy manufacturing and declining relative export shares for light manufacturing, which caused a switch in the rankings of the foreign exchange generation power of the two commodity categories by 1972.

The 1962-83 pattern of relative export shares for South Korea is another example of how the commodity composition of comparative advantage changes through time as economic growth induces shifts in resource use from agriculture to light manufacturing, and then to medium-to-heavy manufacturing (fig. 3). In South Korea, light manufactured



Figure 4  
East Asia's Nominal Protection Rate: Rice



exports grew dramatically relative to other commodity exports during the late 1960's. This expansion coincided with a decline in Japan's export share of light manufactures, illustrating the dynamics of comparative advantage whereby a developing country's exports can replace those of a more developed country.

In South Korea, the growing relative export share of medium-to-heavy manufacturing in the 1970's points to continued changes in the structure of that country's economy. More sophisticated manufacturing, requiring a more highly skilled labor force, is becoming increasingly important. By contrast, the share of foreign exchange earned by light manufactured exports was fairly stable throughout the 1970's and early 1980's. The agricultural sector's relative export shares, however, continued their secular decline through the early 1980's.

Future composition of trade will depend not only on economic growth but also upon policy choices which affect the pattern of structural transformation within agriculture and among sectors of the economy. In the first decade after the Korean War, South Korean agriculture was doubly squeezed by negative price incentives which directly taxed agriculture and by protection granted manufacturing (2). By 1968, however, the effective rate of protection for manufacturing had become negative, equivalent to a 5 percent tax on value added in manufacturing (5).

Assistance to South Korean manufacturing increased again during the 1970's, attaining an effective protection rate of 7 percent by 1978. But assistance to agriculture was much greater, the rate of effective protection reaching 69 percent in 1978 (10). South Korea increased resource outlays allocated to agriculture because of rising rates of protection beginning in the late 1960's, when the government switched from taxing to subsidizing this sector. This country also shows a growing revealed comparative disadvantage in agriculture.

### *Agricultural Assistance, Protection and Self-Sufficiency*

Tariffs and quantitative restrictions were placed upon rice imports in both Japan and its colony Korea during the 1930's in an effort to achieve food self-sufficiency for national security reasons (1). Throughout the post-World War II period, trade barriers on many agricultural commodities have persisted in Japan, the richest of the East Asian countries.

South Korea heavily taxed its agricultural sector during the 1950's and early 1960's because of its drive to industrialize and its desire to maintain low prices for food, an important wage good at that time. However, by the late 1960's, South Korea switched policy and agriculture began receiving assistance in the form of producer subsidies and price supports, sometimes linked with restrictive border measures. This coincided with the adoption of an outward-looking, export-oriented industrial trade policy which is given credit for South Korea's impressive economic growth in the last two decades.

Currently, both countries carry out policies that provide strong production incentives in agriculture. Both restrict imports of rice and beef. Estimated nominal rates of protection for rice and beef rose sharply through the 1970's, but seem to have leveled off somewhat in the 1980's. Producers of wheat, soybeans, and coarse grain reap the benefits of high Government guaranteed prices, although imports have been relatively unrestricted. Producer support for these

commodities has followed a pattern similar to that for rice and beef (fig. 4- 7). 4/

The achievement of virtual self-sufficiency 5/ in rice is a result of many years of Government assistance and protection, dating back to 1904 when rice producers in the Japanese Empire first received relief from import competition. In South Korea, rice exports exceeded imports by 128,000 metric tons in 1983/84; while in Japan, exports, usually subsidized, were greater than imports every year since 1968/69, except for 1975/76, 1976/77, and after 1983/84.

Associating assistance levels and border protection with self-sufficiency points to the linkage between policy changes and shifts in production-to-consumption ratios.<sup>6/</sup> In some

4/ Nominal rates of protection are defined as the ratio of producer or wholesale prices to c.i.f. import prices. Real rates of protection differ from nominal rates in that adjustments are made to correct for the distorting effects of subsidies, taxes, and other policies. Nominal rates of protection are used here because of time and resource limitations precluding calculation of the theoretically preferable real rates.

5/ Self-sufficiency, defined as the ratio of production-to-consumption, is determined not only by economic conditions but by policy intervention. Market interference can result in self-sufficiency rates being different than under free trade equilibrium. For example, South Korea has been able to claim self-sufficiency for rice and meats during the 1970's because consumption was restricted by the Government so that domestic availability closely matched domestic disappearance.

6/ Protectionism can relate to any movement by a government to alter the flows of international trade. "Protectionism refers primarily to policies to tax or limit imports but it also encompasses such measures as direct subsidies or taxes on the production of traded goods and multiple exchange rates as well as all governmental intervention affecting trade flows" (6). In this article, the wholesale-to-import price ratio is used for beef, nonruminant meats, and rice; but the producer-to-import price ratio is used for wheat, coarse grains, and soybeans.

cases, like rice, protection and other forms of assistance have led to high levels of self-sufficiency. For other crops, rising levels of support have not corresponded to a rise in self-sufficiency but rather to a decline (fig. 8).

Figure 5  
**East Asia's Nominal Protection Rate:  
Wheat, Coarse Grains and Soybeans**

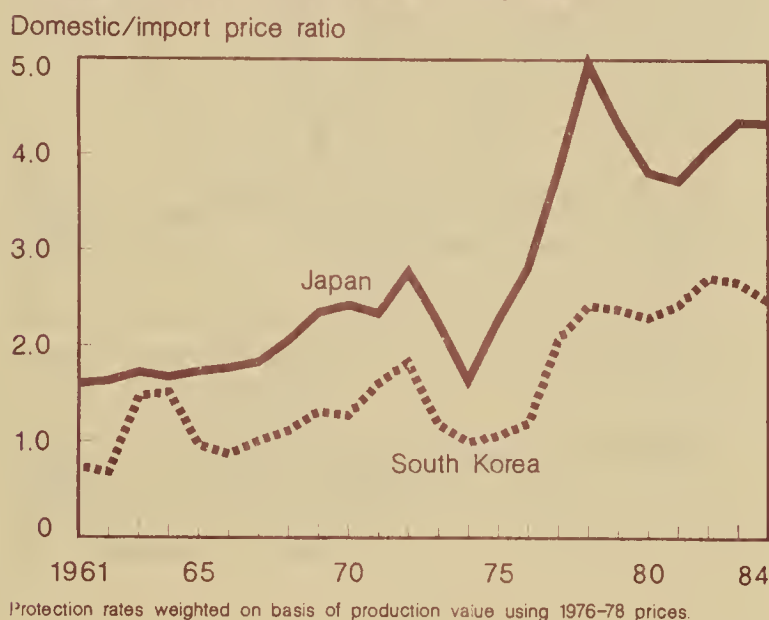
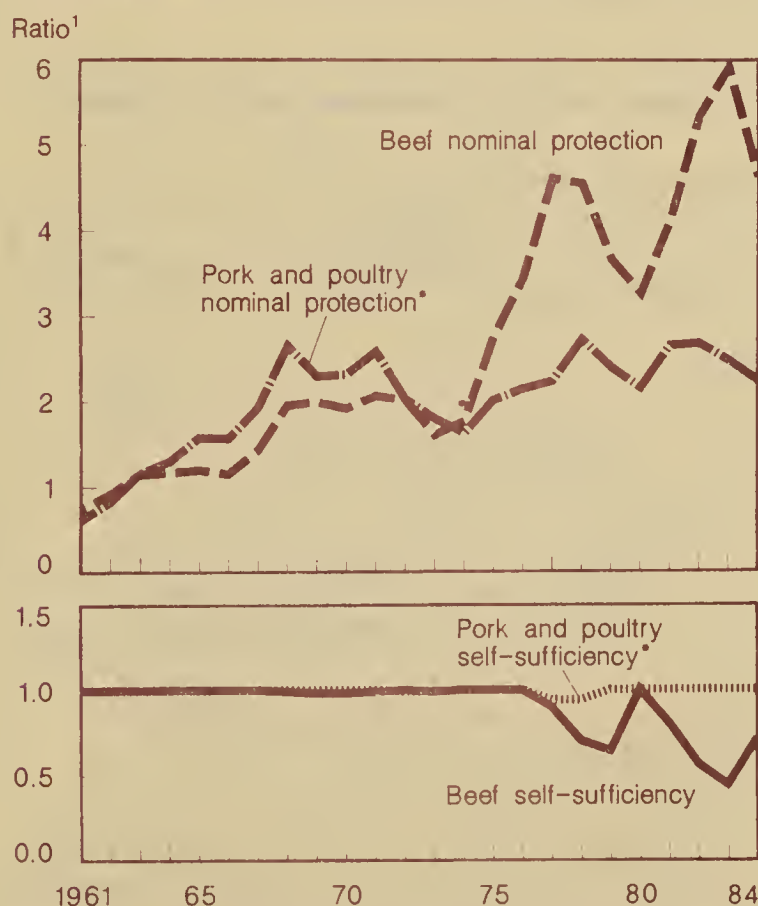


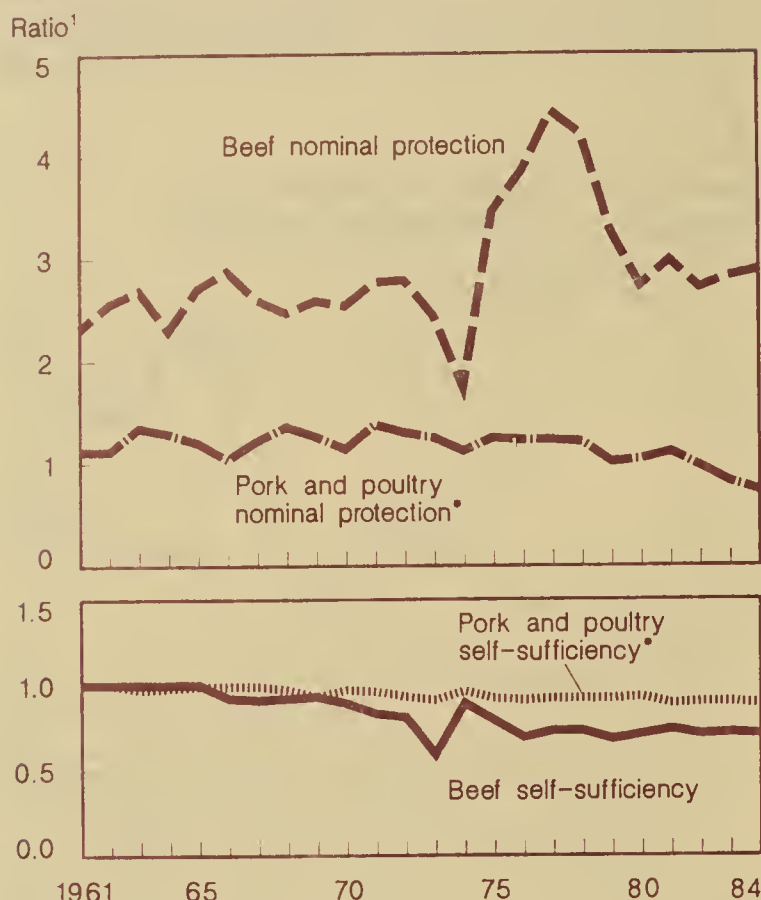
Figure 6  
**Nominal Protection and Self-Sufficiency:  
South Korea**



• Protection rates weighted on basis of production value using 1976-78 prices.  
Self-sufficiency ratios weighted using tons of domestic production.  
1/ For nominal protection, ratio is domestic to import price; for self-sufficiency, ratio is production to consumption.

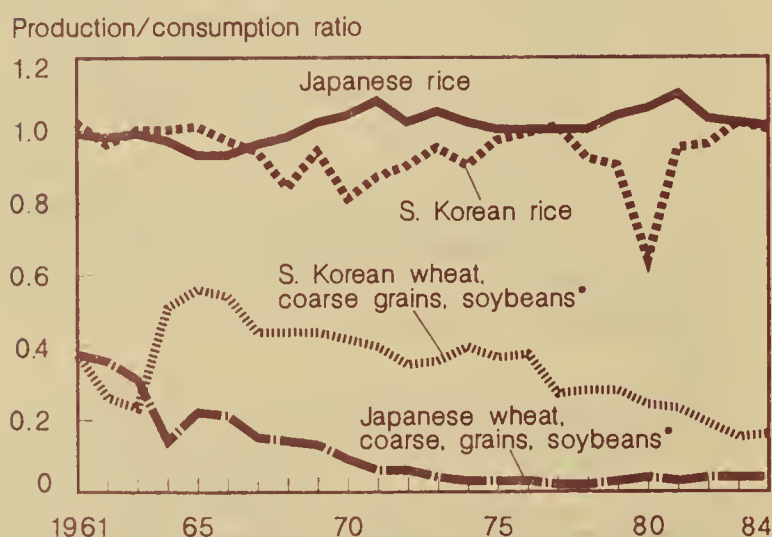


Figure 7  
**Nominal Protection and Self-Sufficiency:  
Japan**



\* Protection rates weighted on basis of production value, using 1976-78 prices; Self-sufficiency ratios weighted using tons of domestic production.  
1/ For nominal protection, ratio is domestic to import price; for self-sufficiency, ratio is production to consumption.

Figure 8  
**Japanese and South Korean Self-Sufficiency**



\* Self-sufficiency ratios aggregated using calorie consumption weights,  $(C)/(C_1 + C_2 + C_3)$  where  $(C)$  equals caloric consumption and  $i=1-3$  refers to wheat, coarse grains, and soybeans.

In Japan, the gap between producer and international prices for grains and oilseeds has consistently been greater than in South Korea, with Japanese prices being a 3.0 to 4.5 multiple of world prices during the 1980's.

Beginning in 1967, increased assistance for wheat, coarse grains, and soybeans slowed the decline in self-sufficiency. More dramatic increases in assistance between 1974-84 were unable to appreciably increase self-sufficiency for coarse grains and soybeans in Japan. However, the production-to-consumption ratio for wheat rose modestly after the 1978 adoption of the Paddy Field Reorientation program which provided farmers incentives to produce alternative crops on paddy land.

Increased assistance for production of feedstuffs has not augmented self-sufficiency in East Asia. This reflects the problem of shifting resources from highly profitable rice into other crops. It also demonstrates the difficulty of achieving the food security objective through increasing self-sufficiency when confronted by opposing international market forces.

In South Korea, production-to-consumption rates for wheat and feedstuffs declined after 1965, despite the rapid rise in assistance. The decline in self-sufficiency was particularly strong for coarse grains and soybeans. South Korea's high income elasticity of meat demand and rising real wages increased the derived demand for feedstuffs beyond the capacity of the economy to supply its own needs. This resulted in large increases in relatively unrestricted feedgrain and oilseed imports, mirroring a similar pattern of import demand growth of feedstuffs in Japan a decade earlier.

During the early 1980's, both beef and nonruminant meats were more heavily protected in South Korea than in Japan. Wholesale prices for beef and veal were 3 to 5.5 times higher than border prices in South Korea and more than double pork and chicken c.i.f. import prices.

Under the protection umbrella, South Korea was not only able to increase production of all meats to help satisfy rapidly growing domestic demand, but was able to sustain self-sufficiency in pork and poultry. However, wholesale prices for beef, which exceeded international prices by a larger percentage during the 1980's than did other agricultural commodities, did not provide sufficient incentives to maintain self-sufficiency. Thirty percent of beef consumed in South Korea was imported during 1980 and 1984.

Despite policy-induced high self-sufficiency levels for important commodities like rice, Japan and South Korea are characterized by declines in overall food self-sufficiency. This underscores the power and dynamics of market forces which over time have shifted the pattern of comparative advantage increasingly toward manufacturing in spite of increases in agricultural protectionism.

### *Implications of Free Trade in East Asian Grain and Meat Markets*

Agricultural assistance and protection in Japan and South Korea impose substantial economic costs domestically and abroad. Nominal rates of protection provide an indication of the potential benefits of liberalization of their agricultural markets. But a more comprehensive understanding of the implications of a shift to free trade is needed.

Tyers and Anderson estimated the economic consequences of liberalization of East Asian grain and meat markets, a large subset of their heavily assisted and protected agricultural market (but which does not include dairy, sugar, fruits, and vegetables). They used a multicommodity stochastic simulation model which accounts for the interdependence among cereals and meats in both global and individual country markets (12). Their model implies that complete removal of trade barriers in East Asian grain and meat markets would not substantially alter the volume of world trade for wheat and coarse grains, but global trade in rice, ruminant, and nonruminant meats would increase 45, 55, and 21 percent respectively.

In Japan and South Korea, prices for grain and meats would fall by as much as two-thirds; but world prices would increase 6 percent for rice, 2 percent for coarse grains, 9 percent for ruminant and 3 percent for nonruminant meat. While domestic prices in East Asian countries would vary more under the liberalization scenario than under current policies, the coefficient of variation of world prices would fall, signifying increased stability in international markets, especially for rice, wheat and ruminant meat.

Tyers and Anderson also calculated the net national economic welfare benefits of a shift to free trade in the East Asian grain and meat markets. Real per capita income would increase 7.4 percent in South Korea and 2.7 percent in Japan. Among principal agricultural suppliers, the percentage of per capita income increases would be 0.6 for New Zealand, 0.2 for Thailand, 0.1 for Australia, and 0.3 for both the United States and Canada.

The costs of agricultural protectionism to East Asian economies are often less apparent than the benefits, which are targeted primarily to the producers of specific goods. The most visible costs are higher food prices for Japanese and South Korean consumers. More subtle costs stem from the inefficient use of domestic and international resources. There is also the possibility that agricultural protectionism may encourage retaliation by foreign countries, which hurts not only the East Asian economies but also the intended beneficiaries of protectionist legislation.

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